

# Triennial Cost Allocation Proceeding Workpapers

San Diego Gas And Electric Company

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# Triennial Cost Allocation Proceeding

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## FORECAST OF REQUIREMENTS – DETAIL

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# Triennial Cost Allocation Proceeding

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## CUSTOMER FORECAST

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## San Diego Gas and Electric Company Customer/Meter Forecast

### 2013 TCAP

#### San Diego Gas and Electric Customer Forecast Models

SDG&E uses econometric models to produce its customer/meter forecasts. The factor driving the residential market growth is residential new building permits. On the other hand, the commercial and industrial (manufacturing and Mining) customer growth is explained by commercial and industrial employment growth in SDG&E' service area. The customer growth estimation was performed using the "Proc Autoreg" method from Statistical Analysis System (SAS). The historical quarterly data used in the forecast is from 1988Q1 to 2008Q4 period.

|               |   |
|---------------|---|
| RESUnit       | Total Residential Dwelling Units with Gas Service |
| RESHP         | Residential New Housing Permits                   |
| RESCUST       | Total Residential GAS Customer Counts             |
| CICUST        | Commercial and Industrial Customer Counts         |
| CIEMP         | "Total Com/Ind Employment" in SDG&E service area  |
| Diff(RESUnit) | RESUnit(t) - RESUnit(t-1)                         |
| Dte           | Date by quarter of the year                       |
| D034FIRE      | Dummy variable, =1 when dte=200304, =0 otherwise  |
| DUM0604       | Dummy variable, =1 when dte=200604, =0 otherwise  |
| DUM0702       | Dummy variable, =1 when dte=200702, =0 otherwise  |
| DUM0802       | Dummy variable, =1 when dte=200802, =0 otherwise  |
| DQ1           | Seasonal Dummy - Spring                           |
| DQ2           | Seasonal Dummy - Summer                           |
| DQ3           | Seasonal Dummy - Fall                             |
| DQ4           | Seasonal Dummy - Winter                           |
| Ln(CICUST)    | Natural Logarithm of CICUST                       |

1) **Residential Meter:** RESUnit (1989Q1 to 2008Q4)

$$\text{Diff (RESUnit)} = -222.219318 + 0.161468 * \text{RESHP (t)}$$

(-0.800)            (2.108)

$$+ 0.277635 * \text{RESHP (t-1)} + 0.175167 * \text{RESHP (t-2)}$$

(4.031)                            (2.605)

$$+ 0.184514 * \text{RESHP (t-3)} + 817.034329 * \text{DQ1}$$

(2.683)                            (5.708)

$$+ 779.175383 * \text{DQ4} - 1018.630968 * \text{D034FIRE}$$

(5.233)                            (-1.858)

$$+ 3534.901600 * \text{DUM0604} + 2627.306267 * \text{DUM0702}$$

(6.771)                            (5.114)

$$- 2509.767807 * \text{DUM0802}$$

(-4.785)

\* t-value is in the parenthesis.

|           |          |               |          |
|-----------|----------|---------------|----------|
| SSE       | 20814452 | DFE           | 68       |
| MSE       | 306094.9 | Root MSE      | 553.2584 |
| Total Rsq | 0.8700   | Durbin-Watson | 1.6456   |

2) **Commercial & Industrial Meter:** CICUST (1990Q1 to 2008Q4)

$$\begin{aligned} \text{Ln (CICUST)} = & 6.853264 + 0.244980 * \text{Ln (EMP (t -1))} \\ & (15.727) \quad (7.820) \\ & - 0.002014 * \text{DQ1} - 0.006104 * \text{DQ3} \\ & (-2.895) \quad (-9.523) \\ & - 0.005005 * \text{DQ4} \\ & (-7.564) \end{aligned}$$

\*t-value is in the parenthesis.

|      |          |               |          |
|------|----------|---------------|----------|
| SSE  | 0.000511 | DFE           | 69       |
| MSE  | 7.408E-6 | Root MSE      | 0.002722 |
| Rsqr | 0.9950   | Durbin-Watson | 1.2618   |

**SAN DIEGO GAS and ELECTRIC COMPANY: CUSTOMER FORECAST  
 (Annual Averages)  
 2013TCAP**

|                            | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014</u> | <u>2015</u> | <u>2016</u> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Residential</b>         | 775,938     | 788,196     | 798,253     | 805,013     | 808,545     | 812,174     | 817,006     | 822,459     | 829,666     | 838,837     | 849,935     | 862,261     | 875,213     |
| <b>Core C/I</b>            | 29,454      | 29,513      | 29,588      | 29,860      | 30,158      | 30,123      | 30,150      | 30,240      | 30,300      | 30,358      | 30,419      | 30,492      | 30,579      |
| <b>NGV</b>                 | 252         | 276         | 114         | 28          | 29          | 26          | 27          | 28          | 28          | 29          | 29          | 30          | 30          |
| <b>Non-Core C/I</b>        | 55          | 56          | 56          | 57          | 53          | 55          | 58          | 57          | 57          | 57          | 58          | 58          | 58          |
| <b>Electric Generation</b> | 71          | 75          | 77          | 71          | 68          | 64          | 65          | 69          | 72          | 75          | 78          | 81          | 84          |
| <b>TOTAL</b>               | 805,771     | 818,117     | 828,088     | 835,029     | 838,853     | 842,442     | 847,305     | 852,854     | 860,124     | 869,356     | 880,518     | 892,921     | 905,963     |

Note: Years from 2004 to 2010: are recorded data  
 Years from 2011 to 2016: the forecasted meter counts were adjusted based on the recorded 2009 and 2010 data.





**SAN DIEGO GAS and ELECTRIC COMPANY: CUSTOMER FORECAST  
 2013 TCAP  
 (annual averages)**

|                            | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| <b>Residential</b>         | 817,006 | 822,459 | 829,666 | 838,837 | 849,935 | 862,261 | 875,213 |
| <b>Core C/I</b>            | 30,150  | 30,240  | 30,300  | 30,358  | 30,419  | 30,492  | 30,579  |
| <b>NGV</b>                 | 27      | 28      | 28      | 29      | 29      | 30      | 30      |
| <b>Non-Core C/I</b>        | 58      | 57      | 57      | 57      | 58      | 58      | 58      |
| <b>Electric Generation</b> | 65      | 69      | 72      | 75      | 78      | 81      | 84      |
| <b>TOTAL</b>               | 847,305 | 852,854 | 860,124 | 869,356 | 880,518 | 892,921 | 905,963 |
| <b>Net Gain</b>            | 4,863   | 5,549   | 7,270   | 9,233   | 11,162  | 12,403  | 13,042  |
| <b>Meter Growth</b>        | 0.58%   | 0.65%   | 0.85%   | 1.07%   | 1.28%   | 1.41%   | 1.46%   |

# Triennial Cost Allocation Proceeding

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**EUFORCASTER**

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Refer to the TCAP Workpapers of Southern California Gas Company for documentation of the EUForecaster model. This model is used to forecast gas demands for the residential, core commercial and core industrial markets.

# Triennial Cost Allocation Proceeding

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## RESIDENTIAL DEMAND FORECAST

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## **Core Residential End-Use Model**

### **Triennial Cost Allocation Proceeding**

#### **Introduction:**

SDG&E used the End Use Forecaster model to generate annual gas demand forecasts for the residential market from 2013 through 2015. The software's market segmentation and end-use modeling framework analyzes the impacts of competitive strategies (gas vs. electricity) and market scenarios on gas demand and market shares.

The model separates the residential market into four building types (B-level). These groups are identified by the premise code classification found in the company billing files. The four residential groups are:

- Single-Family (SF);
- Multi-Family (MF);
- Master Metered (MM); and
- Sub-Metered (SM).

The residential model identifies eight end-uses (N-level) that are the primary drivers of natural gas demand:

- Space heating;
- Water heating;
- Cooking;
- Drying;
- Pool heating;
- Spa heating;
- Fireplace; and
- Barbeque.

The model assumes two fuel choices (F-level) for end-uses:

- Natural gas; and
- Electricity.

The model assumes up to four efficiency levels (E-level) for the various end-uses. In general, the efficiency levels are:

- Stock;
- Standard;
- High efficiency; and
- Premium efficiency.

See Figure 1 for a classification of the number of efficiency levels for each end use by customer segment type.

See Figure 1 for a classification of the number of efficiency levels for each end use by customer segment type.

A set of post-model adjustments were applied to the model's annual demand forecast. The first adjustment calibrates to the recorded 2010 weather-adjusted demand. Next, the annual forecast was parceled out to a series of monthly forecasts by a process which involves two steps. These two steps consist of (1) using the fitted equation<sup>1</sup> for customer demand to generate a forecast of use per customer that varies with the number of calendar days and heating degree days in a given month and (2) calculating a series of weights based on the customer's predicted monthly usage share in total annual consumption. The shares obtained from the latter step were then applied to annual totals to derive the stream of monthly forecasts which are conditional on the particular weather design specification for the entire year. An adjustment to the forecast offsets the throughput by the energy efficiency savings. Annual conservation benefits associated with AMI are estimated by SDGE to represent 1% of the core gas throughput in the post deployment period which starts after 2012. In each year of the deployment period of 2009-2011, 1/3 of 1% of the load will have been conserved due to AMI. After 2011, 1% of the load will have been conserved due to AMI energy savings. The residential load was reduced by the AMI expected energy savings.

Figures 2-5 illustrate the monthly forecasts for each weather scenario.

### **Data Sources:**

The information used to perform the modeling and to generate the forecast includes historical 2010 consumption and customer counts; meter counts, growth, and decay; use per customer by vintage and unit energy consumption (UEC) values; fuel costs and price elasticity; equipment capital costs and availability; building and equipment lives and decay. The historical 2010 data is in Figure 6.

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### **Meter Counts, Growth and Decay:**

Regression equations were developed for each of the 5 building types. The meter count forecast is a company-specific forecast based on actual meter counts within the SoCalGas service territory. Data on meter decay rates were obtained from the Energy Information Administration (EIA). See Figure 7 for the meter forecast

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### **Use Per Customer by Vintage and UEC:**

Use per customer and Unit Energy Consumption (UEC) data were based on company marketing data and the California Measurement Advisory Council. See Figure 8 for the appliance UEC's.

### **Fuel Costs and Price Elasticity:**

Average and marginal gas prices (\$/therm) were calculated from forecasts of the residential rate components. Residential rates have two consumption tiers. We used the simple average of the second tiers' projected monthly prices for each forecast year as the marginal rate. The marginal rate was used for each housing segment type.

For a given housing segment type, the average gas commodity rate was calculated using a pair of weights for the two consumption tiers applied to the simple average of each tier's monthly rate. The average commodity rate in each forecast year was developed using the same consumption tier weights, but with the forecasts of rates for each residential rate tier. The average gas price each year was then calculated by including the non-volumetric customer charges with the year's average gas commodity price. Figure 9 illustrates the gas price forecasts.

### **Electric Price Data:**

The electricity price inputs consist of average prices (cents/kWh) and marginal prices (cents/kWh). The forecasts for the residential customer class were developed by SDG&E's electricity rate analysis group.

A ratio of the housing type's average gas price to the overall residential gas price was constructed. The weight was then multiplied by the overall average electricity price to derive residential market-specific electricity prices.

The marginal prices for each residential housing type were calculated by multiplying each year's respective average price by a ratio. These ratios were 1.513 for the SF, MF2 and MF3 housing types, 1.034 for the MM housing type and 1.125 for the SM housing type. These various ratios were estimated from analyses of SCE Schedule D rate schedule for housing types SF, MF2 and MF3; SCE Schedule DM for housing type MM; and SCE Schedule D as applied to sub-metered buildings for housing type SM. Copies of these rate schedules were obtained from the SCE web-site. Figure 10 illustrates the electricity price forecasts.



Price elasticities for each building type were based on the SoCalGas Residential Econometric Demand Forecasting Model. See Figure 7 for price elasticities.

### **Equipment Capital Costs and Availability:**

Data on equipment capital costs and availability were from EIA, the Residential Appliance Saturation Survey (RASS), Energy Star (EPA & DOE), and SDGE company data. See Figures 11 and 12 for gas and electric appliance equipment cost.

### **Building and Equipment Lives and Decay:**

Building decay rates are based on the building shell lifetimes, where the lifetime is defined as the length of time it takes for either a demolition or a major renovation to occur. For single-family residential buildings, an exponential rate of decay of 0.3% per year was assumed. See Figure 13 for the building decay rates.

Data on equipment lives and decay rates are based on EIA, RASS, Energy Star, and SoCalGas company data. See Figure 14 for the average lifetimes of gas appliances.

### **Saturations, Fuel and Efficiency Shares:**

Saturation values, fuel shares, and efficiency shares were extracted from SoCalGas company data files and the most recent 2004 RASS Update. Please see Figures 15-18 for saturations, fuel, and efficiency shares.

#### **AMI:**

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

## **RESIDENTIAL DATA**

**San Diego Gas & Electric  
 Triennial Cost Allocation Proceeding  
 Figure 1: Number of Efficiency Levels by End Use by Customer Segment**

|               | Space Heating |          | Water Heating |          | Cooking |          | Drying |          | Pool |          | Spa |          | Fireplace |          | BBQ |          |
|---------------|---------------|----------|---------------|----------|---------|----------|--------|----------|------|----------|-----|----------|-----------|----------|-----|----------|
|               | Gas           | Electric | Gas           | Electric | Gas     | Electric | Gas    | Electric | Gas  | Electric | Gas | Electric | Gas       | Electric | Gas | Electric |
| Single Family | 4             | 1        | 4             | 4        | 2       | 2        | 2      | 4        | 2    | 0        | 2   | 0        | 1         | 0        | 1   | 1        |
| Multi-Family  | 4             | 1        | 4             | 4        | 2       | 2        | 2      | 4        | 0    | 0        | 0   | 0        | 0         | 0        | 1   | 1        |
| Master Meter  | 4             | 1        | 4             | 4        | 2       | 2        | 2      | 4        | 0    | 0        | 0   | 0        | 0         | 0        | 1   | 1        |
| Sub-Meter     | 4             | 1        | 4             | 4        | 2       | 2        | 2      | 4        | 0    | 0        | 0   | 0        | 0         | 0        | 1   | 1        |

ResAvg

| San Diego Gas and Electric                    |       |       |       |       |       |       |       |       |       |        |        |        |        |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Triennial Cost Allocation Proceeding          |       |       |       |       |       |       |       |       |       |        |        |        |        |
| Figure 2: Average Year Demand Forecast (Mdth) |       |       |       |       |       |       |       |       |       |        |        |        |        |
| YEAR  | MDTH1 | MDTH2 | MDTH3 | MDTH4 | MDTH5 | MDTH6 | MDTH7 | MDTH8 | MDTH9 | MDTH10 | MDTH11 | MDTH12 | TOTAL  |
| 2010  | 4,128 | 3,546 | 3,415 | 2,723 | 2,018 | 1,525 | 1,439 | 1,432 | 1,398 | 1,719  | 2,771  | 4,294  | 30,408 |
| 2011  | 4,241 | 3,643 | 3,508 | 2,798 | 2,073 | 1,567 | 1,479 | 1,471 | 1,437 | 1,766  | 2,846  | 4,412  | 31,241 |
| 2012  | 4,238 | 3,640 | 3,505 | 2,796 | 2,071 | 1,566 | 1,478 | 1,470 | 1,436 | 1,765  | 2,844  | 4,408  | 31,217 |
| 2013  | 4,173 | 3,585 | 3,452 | 2,753 | 2,040 | 1,542 | 1,455 | 1,448 | 1,414 | 1,738  | 2,801  | 4,341  | 30,740 |
| 2014  | 4,178 | 3,589 | 3,456 | 2,756 | 2,042 | 1,544 | 1,457 | 1,450 | 1,415 | 1,740  | 2,804  | 4,346  | 30,775 |
| 2015  | 4,186 | 3,596 | 3,463 | 2,761 | 2,046 | 1,547 | 1,460 | 1,452 | 1,418 | 1,743  | 2,810  | 4,354  | 30,837 |
| 2016  | 4,199 | 3,607 | 3,473 | 2,770 | 2,052 | 1,551 | 1,464 | 1,457 | 1,422 | 1,748  | 2,818  | 4,368  | 30,930 |

| San Diego Gas and Electric                 |       |       |       |       |       |       |       |       |       |        |        |        |        |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Triennial Cost Allocation Proceeding       |       |       |       |       |       |       |       |       |       |        |        |        |        |
| Figure 3: COLD Year Demand Forecast (Mdth) |       |       |       |       |       |       |       |       |       |        |        |        |        |
| YEAR                                       | MDTH1 | MDTH2 | MDTH3 | MDTH4 | MDTH5 | MDTH6 | MDTH7 | MDTH8 | MDTH9 | MDTH10 | MDTH11 | MDTH12 | TOTAL  |
| 2009                                       | 4,950 | 4,269 | 3,998 | 3,029 | 2,149 | 1,541 | 1,424 | 1,421 | 1,391 | 1,776  | 3,124  | 5,191  | 34,264 |
| 2010                                       | 4,823 | 4,124 | 3,916 | 3,050 | 2,139 | 1,526 | 1,403 | 1,393 | 1,364 | 1,758  | 3,109  | 5,034  | 33,641 |
| 2011                                       | 4,955 | 4,237 | 4,023 | 3,134 | 2,197 | 1,568 | 1,441 | 1,432 | 1,401 | 1,807  | 3,194  | 5,172  | 34,562 |
| 2012                                       | 4,951 | 4,234 | 4,020 | 3,132 | 2,196 | 1,566 | 1,440 | 1,430 | 1,400 | 1,805  | 3,192  | 5,168  | 34,535 |
| 2013                                       | 4,876 | 4,169 | 3,959 | 3,084 | 2,162 | 1,542 | 1,418 | 1,409 | 1,379 | 1,778  | 3,143  | 5,089  | 34,008 |
| 2014                                       | 4,881 | 4,174 | 3,963 | 3,087 | 2,165 | 1,544 | 1,420 | 1,410 | 1,380 | 1,780  | 3,147  | 5,095  | 34,047 |
| 2015                                       | 4,891 | 4,183 | 3,971 | 3,093 | 2,169 | 1,547 | 1,422 | 1,413 | 1,383 | 1,783  | 3,153  | 5,105  | 34,115 |
| 2016                                       | 4,906 | 4,195 | 3,983 | 3,103 | 2,175 | 1,552 | 1,427 | 1,417 | 1,387 | 1,789  | 3,163  | 5,121  | 34,218 |

ResHot

| San Diego Gas and Electric                |       |       |       |       |       |       |       |       |       |        |        |        |        |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Triennial Cost Allocation Proceeding      |       |       |       |       |       |       |       |       |       |        |        |        |        |
| Figure 4: HOT Year Demand Forecast (Mdth) |       |       |       |       |       |       |       |       |       |        |        |        |        |
| YEAR                                      | MDTH1 | MDTH2 | MDTH3 | MDTH4 | MDTH5 | MDTH6 | MDTH7 | MDTH8 | MDTH9 | MDTH10 | MDTH11 | MDTH12 | TOTAL  |
| 2009                                      | 3,459 | 3,007 | 2,909 | 2,331 | 1,841 | 1,471 | 1,423 | 1,421 | 1,384 | 1,626  | 2,385  | 3,598  | 26,857 |
| 2010                                      | 3,356 | 2,899 | 2,837 | 2,322 | 1,820 | 1,450 | 1,399 | 1,393 | 1,357 | 1,602  | 2,358  | 3,477  | 26,270 |
| 2011                                      | 3,448 | 2,978 | 2,914 | 2,386 | 1,870 | 1,490 | 1,437 | 1,431 | 1,394 | 1,646  | 2,422  | 3,572  | 26,989 |
| 2012                                      | 3,446 | 2,976 | 2,912 | 2,384 | 1,868 | 1,489 | 1,436 | 1,430 | 1,393 | 1,645  | 2,420  | 3,569  | 26,968 |
| 2013                                      | 3,393 | 2,930 | 2,868 | 2,348 | 1,840 | 1,466 | 1,414 | 1,408 | 1,372 | 1,620  | 2,383  | 3,515  | 26,556 |
| 2014                                      | 3,397 | 2,934 | 2,871 | 2,350 | 1,842 | 1,468 | 1,416 | 1,410 | 1,374 | 1,622  | 2,386  | 3,519  | 26,587 |
| 2015                                      | 3,404 | 2,940 | 2,877 | 2,355 | 1,845 | 1,470 | 1,419 | 1,413 | 1,376 | 1,625  | 2,391  | 3,526  | 26,640 |
| 2016                                      | 3,414 | 2,948 | 2,885 | 2,362 | 1,851 | 1,475 | 1,423 | 1,417 | 1,381 | 1,630  | 2,398  | 3,537  | 26,720 |

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| San Diego Gas and Electric                 |       |       |       |       |       |       |       |       |       |        |        |        |        |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Triennial Cost Allocation Proceeding       |       |       |       |       |       |       |       |       |       |        |        |        |        |
| Figure 5: BASE Year Demand Forecast (Mdth) |       |       |       |       |       |       |       |       |       |        |        |        |        |
| YEAR                                       | MDTH1 | MDTH2 | MDTH3 | MDTH4 | MDTH5 | MDTH6 | MDTH7 | MDTH8 | MDTH9 | MDTH10 | MDTH11 | MDTH12 | TOTAL  |
| 2009                                       | 1,421 | 1,284 | 1,421 | 1,375 | 1,421 | 1,375 | 1,421 | 1,421 | 1,375 | 1,421  | 1,375  | 1,421  | 16,733 |
| 2010                                       | 1,393 | 1,258 | 1,393 | 1,348 | 1,393 | 1,348 | 1,393 | 1,393 | 1,348 | 1,393  | 1,348  | 1,393  | 16,400 |
| 2011                                       | 1,431 | 1,293 | 1,431 | 1,385 | 1,431 | 1,385 | 1,431 | 1,431 | 1,385 | 1,431  | 1,385  | 1,431  | 16,849 |
| 2012                                       | 1,430 | 1,292 | 1,430 | 1,384 | 1,430 | 1,384 | 1,430 | 1,430 | 1,384 | 1,430  | 1,384  | 1,430  | 16,836 |
| 2013                                       | 1,408 | 1,272 | 1,408 | 1,363 | 1,408 | 1,363 | 1,408 | 1,408 | 1,363 | 1,408  | 1,363  | 1,408  | 16,579 |
| 2014                                       | 1,410 | 1,273 | 1,410 | 1,364 | 1,410 | 1,364 | 1,410 | 1,410 | 1,364 | 1,410  | 1,364  | 1,410  | 16,598 |
| 2015                                       | 1,413 | 1,276 | 1,413 | 1,367 | 1,413 | 1,367 | 1,413 | 1,413 | 1,367 | 1,413  | 1,367  | 1,413  | 16,631 |
| 2016                                       | 1,417 | 1,280 | 1,417 | 1,371 | 1,417 | 1,371 | 1,417 | 1,417 | 1,371 | 1,417  | 1,371  | 1,417  | 16,681 |

**San Diego Gas And Electric**  
**Figure 6: 2010 Historical Data**

|                                | Single Family | Multi Family | Master Meter | Sub Meter  |
|--------------------------------|---------------|--------------|--------------|------------|
| Total Therm Sales              | 219,667,233   | 40,959,158   | 33,253,003   | 10,203,537 |
| Meter Count                    |               |              |              |            |
| Pre 1979 Customers             | 546,839       | 140,286      | 11,399       | 474        |
| 1979-2004 Customers            | 81,910        | 29,392       | 268          | 1          |
| 2005-2010 Customers            | 2,360         | 1,036        | 21           | 0          |
| TOTAL                          | 631,109       | 170,714      | 11,688       | 475        |
| Use Per Customer (UPC, Therms) |               |              |              |            |
| Pre 1979                       | 357           | 256          | 2,825        | 22,492     |
| 1979-2004                      | 385           | 215          | 8,920        | 20,076     |
| 2005-2010                      | 239           | 133          | 5,531        | 12,447     |
| Price Elasticity               | -0.105        | -0.071       | -0.069       | -0.105     |

**San Diego Gas And Electric**  
**Figure 7: Meter Count Forecast**

| Year | Total     | Single Family | Multi Family | Master Meter | Sub Meter |
|------|-----------|---------------|--------------|--------------|-----------|
| 2010 | 3,623,377 | 1,149,282     | 38,786       | 1,804        |           |
| 2011 | 3,625,383 | 1,149,282     | 39,876       | 1,804        |           |
| 2012 | 3,627,390 | 1,149,282     | 41,318       | 1,804        |           |
| 2013 | 3,629,398 | 1,149,282     | 43,152       | 1,804        |           |
| 2014 | 3,631,407 | 1,149,282     | 45,372       | 1,804        |           |
| 2015 | 3,633,417 | 1,149,282     | 47,837       | 1,804        |           |
| 2016 | 3,635,428 | 1,149,282     | 50,427       | 1,804        |           |

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



**San Diego Gas & Electric  
Triennial Cost Allocation Proceeding  
Figure :: Appliance Unit Energy Consumption (Gas in therms, Electric in Kwh)**

| End-Use    | Vintage  | Single Family |          | Multi-Family |          | Master Meter |          | Sub Meter |          |
|------------|----------|---------------|----------|--------------|----------|--------------|----------|-----------|----------|
|            |          | Gas           | Electric | Gas          | Electric | Gas          | Electric | Gas       | Electric |
| Space Heat | Stock    | 370           | 4,110    | 200          | 730      | 200          | 730      | 330       | 1,340    |
|            | Standard | 330           | 3,730    | 180          | -        | 180          | -        | 300       | -        |
|            | High     | 310           | 3,450    | 170          | -        | 170          | -        | 280       | -        |
|            | Premium  | 280           | 3,170    | 150          | -        | 150          | -        | 260       | -        |
| Water Heat | Stock    | 260           | 2,440    | 230          | 2,440    | 230          | 2,440    | 210       | 2,010    |
|            | Standard | 240           | 2,220    | 210          | 2,220    | 210          | 2,220    | 190       | 1,830    |
|            | High     | 230           | 2,110    | 200          | 2,110    | 200          | 2,110    | 180       | 1,740    |
|            | Premium  | 220           | 2,050    | 190          | 2,050    | 190          | 2,050    | 180       | 1,690    |
| Cooking    | Stock    | 50            | 574      | 34           | 465      | 34           | 465      | 45        | 514      |
|            | Standard | 42.5          | 487.9    | 29           | 395      | 29           | 395      | 38        | 437      |
| Drying     | Stock    | 45.1          | 1442.1   | 24           | 1,442    | 24           | 1,442    | 26        | 873      |
|            | Standard | 42.8          | 1369.9   | 23           | 1,370    | 23           | 1,370    | 25        | 830      |
| Pool       | Stock    | 177           | 3,431    | 177          | 3,431    | 177          | 3,431    | 177       | 3,431    |
| Spa        | Stock    | 146           | 430      | 146          | 430      | 146          | 430      | 146       | 430      |
| Fireplace  | Stock    | 21            | -        | 21           | -        | 21           | -        | 21        | -        |
| BBQ        | Stock    | 28            | -        | 28           | -        | 28           | -        | 28        | -        |

San Diego Gas and Electric  
 Figure 9: Average Gas Prices (\$/Therm)

| Year | Res Price<br>Deflator | R SF<br>Average<br>Price | R MF2<br>Average<br>Price | R MF3<br>Average<br>Price | R MM<br>Average<br>Price | R SM<br>Average<br>Price |
|------|-----------------------|--------------------------|---------------------------|---------------------------|--------------------------|--------------------------|
| 2010 | 100.00                | 1.0223                   | 0.9838                    | 0.9876                    | 0.9603                   | 0.9740                   |
| 2011 | 101.74                | 0.7266                   | 0.7018                    | 0.7043                    | 0.6867                   | 0.6955                   |
| 2012 | 103.73                | 0.7378                   | 0.7129                    | 0.7153                    | 0.6977                   | 0.7066                   |
| 2013 | 106.10                | 0.8432                   | 0.8155                    | 0.8183                    | 0.7986                   | 0.8085                   |
| 2014 | 108.61                | 0.8704                   | 0.8418                    | 0.8446                    | 0.8244                   | 0.8346                   |
| 2015 | 111.12                | 0.8993                   | 0.8700                    | 0.8729                    | 0.8522                   | 0.8626                   |
| 2016 | 113.71                | 0.9216                   | 0.8916                    | 0.8945                    | 0.8733                   | 0.8840                   |

San Diego Gas and Electric  
 Marginal Gas Prices (\$/Therm)

| Year | Res Price<br>Deflator | R SF<br>Marginal<br>Price | R MF2<br>Marginal<br>Price | R MF3<br>Marginal<br>Price | R MM<br>Marginal<br>Price | R SM<br>Marginal<br>Price |
|------|-----------------------|---------------------------|----------------------------|----------------------------|---------------------------|---------------------------|
| 2010 | 100.00                | 1.1674                    | 1.1674                     | 1.1674                     | 1.1674                    | 1.1674                    |
| 2011 | 101.74                | 0.8198                    | 0.8198                     | 0.8198                     | 0.8198                    | 0.8198                    |
| 2012 | 103.73                | 0.8310                    | 0.8310                     | 0.8310                     | 0.8310                    | 0.8310                    |
| 2013 | 106.10                | 1.0561                    | 1.0561                     | 1.0561                     | 1.0561                    | 1.0561                    |
| 2014 | 108.61                | 1.0891                    | 1.0891                     | 1.0891                     | 1.0891                    | 1.0891                    |
| 2015 | 111.12                | 1.1233                    | 1.1233                     | 1.1233                     | 1.1233                    | 1.1233                    |
| 2016 | 113.71                | 1.1509                    | 1.1509                     | 1.1509                     | 1.1509                    | 1.1509                    |

San Diego Gas and Electric  
 Figure 10: Average Electric Prices (Cents/KWh)

| Year | R SF<br>Average<br>Price | R MF2<br>Average<br>Price | R MF3<br>Average<br>Price | R MM<br>Average<br>Price | R SM<br>Average<br>Price |
|------|--------------------------|---------------------------|---------------------------|--------------------------|--------------------------|
| 2010 | 18.60                    | 17.90                     | 17.96                     | 17.47                    | 17.72                    |
| 2011 | 18.97                    | 18.33                     | 18.39                     | 17.93                    | 18.16                    |
| 2012 | 19.04                    | 18.40                     | 18.46                     | 18.01                    | 18.24                    |
| 2013 | 21.00                    | 20.31                     | 20.38                     | 19.89                    | 20.13                    |
| 2014 | 21.64                    | 20.93                     | 21.00                     | 20.49                    | 20.75                    |
| 2015 | 22.19                    | 21.47                     | 21.54                     | 21.03                    | 21.29                    |
| 2016 | 22.65                    | 21.91                     | 21.99                     | 21.46                    | 21.73                    |

San Diego Gas and Electric  
 Marginal Electric Prices (Cents/KWh)

| Year | R SF<br>Marginal<br>Price | R MF2<br>Marginal<br>Price | R MF3<br>Marginal<br>Price | R MM<br>Marginal<br>Price | R SM<br>Marginal<br>Price |
|------|---------------------------|----------------------------|----------------------------|---------------------------|---------------------------|
| 2010 | 28.14                     | 27.08                      | 27.18                      | 18.06                     | 19.94                     |
| 2011 | 28.71                     | 27.73                      | 27.83                      | 18.54                     | 20.44                     |
| 2012 | 28.82                     | 27.84                      | 27.94                      | 18.62                     | 20.52                     |
| 2013 | 31.77                     | 30.73                      | 30.83                      | 20.56                     | 22.66                     |
| 2014 | 32.74                     | 31.66                      | 31.77                      | 21.19                     | 23.35                     |
| 2015 | 33.58                     | 32.49                      | 32.60                      | 21.75                     | 23.96                     |
| 2016 | 34.28                     | 33.16                      | 33.27                      | 22.19                     | 24.45                     |

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 Figure 13: Gas Appliance Equipment Cost (Nominal \$)**

| <b>End-use</b> | <b>Efficiency Level</b> | <b>Single Family</b> | <b>Multi-Family</b> | <b>Master Meter</b> | <b>Sub Meter</b> |
|----------------|-------------------------|----------------------|---------------------|---------------------|------------------|
| Space Heat     | Stock                   | 4,000                | 1,600               | 1,000               | 1,600            |
|                | Standard                | 4,600                | 1,840               | 1,150               | 1,840            |
|                | High                    | 4,800                | 1,920               | 1,200               | 1,920            |
|                | Premium                 | 5,000                | 1,980               | 1,250               | 1,980            |
| Water Heat     | Stock                   | 550                  | 330                 | 330                 | 330              |
|                | Standard                | 650                  | 390                 | 390                 | 390              |
|                | High                    | 700                  | 420                 | 420                 | 420              |
|                | Premium                 | 750                  | 450                 | 450                 | 450              |
| Cooking        | Stock                   | 500                  | 250                 | 250                 | 250              |
|                | Standard                | 1,400                | 1,400               | 1,400               | 1,400            |
| Drying         | Stock                   | 328                  | 328                 | 328                 | 328              |
|                | Standard                | 482                  | 482                 | 482                 | 482              |
| Pool           | Stock                   | 1,200                | 1,200               | 1,200               | 1,200            |
| Spa            | Stock                   | 2,000                | 2,000               | 2,000               | 2,000            |
| Fireplace      | Stock                   | 150                  | 150                 | 150                 | 150              |
| BBQ            | Stock                   | 1,000                | 600                 | 600                 | 600              |

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 Figure 14: Electric Appliance Equipment Cost (Nominal \$)**

| <b>End-use</b> | <b>Efficiency Level</b> | <b>Single Family</b> | <b>Multi-Family</b> | <b>Master Meter</b> | <b>Sub Meter</b> |
|----------------|-------------------------|----------------------|---------------------|---------------------|------------------|
| Space Heat     | Stock                   | 4,100                | 1,640               | 1,025               | 1,640            |
| Water Heat     | Stock                   | 550                  | 330                 | 330                 | 330              |
|                | Standard                | 650                  | 390                 | 390                 | 390              |
|                | High                    | 700                  | 420                 | 420                 | 420              |
|                | Premium                 | 750                  | 450                 | 450                 | 450              |
| Cooking        | Stock                   | 500                  | 250                 | 250                 | 250              |
|                | Standard                | 1,400                | 1,400               | 1,400               | 1,400            |
| Drying         | Stock                   | 328                  | 328                 | 328                 | 328              |
|                | Standard                | 482                  | 482                 | 482                 | 482              |
| Pool           | Stock                   | 1,200                | 1,200               | 1,200               | 1,200            |
| Spa            | Stock                   | 2,000                | 2,000               | 2,000               | 2,000            |
| Fireplace      | Stock                   | 150                  | 150                 | 150                 | 150              |
| BBQ            | Stock                   | 1,000                | 600                 | 600                 | 600              |

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**Figure 15: Building Lives and Decay Rate**

| <b>Building Type</b>   | <b>Building Decay Rate</b> |
|------------------------|----------------------------|
| Single-Family          | 0.003                      |
| Multi-Family > 4 Units | 0.006                      |
| Master Meter           | 0.008                      |
| Sub Meter              | 0.008                      |

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**Figure 16: Gas Appliance Equipment Age (Years)**

| <b>End-Use</b>    | <b>Vintage</b> | <b>Single Family</b> |                | <b>Multi-Family</b> |                | <b>Master Meter</b> |                | <b>Sub Meter</b> |                |            |
|-------------------|----------------|----------------------|----------------|---------------------|----------------|---------------------|----------------|------------------|----------------|------------|
|                   |                | <b>Max</b>           | <b>Average</b> | <b>Max</b>          | <b>Average</b> | <b>Max</b>          | <b>Average</b> | <b>Max</b>       | <b>Average</b> | <b>Max</b> |
| <b>Space Heat</b> | Pre-1979       | 17                   | 17             | 17                  | 15             | 15                  | 16             | 16               | 16             | 16         |
|                   | 1979 - 2004    | 17                   | 10             | 17                  | 11             | 15                  | 11             | 16               | 11             | 16         |
|                   | 2005-2007      | 17                   | 3              | 17                  | 4              | 15                  | 4              | 16               | 4              | 16         |
| <b>Water Heat</b> | Pre-1979       | 7                    | 7              | 7                   | 6              | 8                   | 6              | 8                | 6              | 8          |
|                   | 1979 - 2004    | 7                    | 7              | 7                   | 8              | 8                   | 8              | 8                | 8              | 8          |
|                   | 2005-2007      | 7                    | 3              | 7                   | 4              | 8                   | 4              | 8                | 4              | 8          |
| <b>Cooking</b>    | Pre-1979       | 12                   | 12             | 12                  | 10             | 11                  | 14             | 14               | 14             | 14         |
|                   | 1979 - 2004    | 12                   | 10             | 12                  | 11             | 11                  | 11             | 14               | 11             | 14         |
|                   | 2005-2007      | 12                   | 2              | 12                  | 4              | 11                  | 3              | 14               | 3              | 14         |
| <b>Drying</b>     | Pre-1979       | 8                    | 8              | 8                   | 6              | 8                   | 8              | 8                | 8              | 8          |
|                   | 1979 - 2004    | 8                    | 8              | 8                   | 8              | 8                   | 8              | 8                | 8              | 8          |
|                   | 2005-2007      | 8                    | 6              | 8                   | 3              | 8                   | 4              | 8                | 4              | 8          |
| <b>Pool</b>       | Pre-1979       | 13                   | 13             | 13                  | 13             | 13                  | 13             | 13               | 13             | 13         |
|                   | 1979 - 2004    | 13                   | 9              | 13                  | 9              | 13                  | 9              | 13               | 9              | 13         |
|                   | 2005-2007      | 13                   | 3              | 13                  | 3              | 13                  | 3              | 13               | 3              | 13         |
| <b>Spa</b>        | Pre-1979       | 11                   | 11             | 11                  | 11             | 11                  | 11             | 11               | 11             | 11         |
|                   | 1979 - 2004    | 11                   | 8              | 11                  | 8              | 11                  | 8              | 11               | 8              | 11         |
|                   | 2005-2007      | 11                   | 3              | 11                  | 3              | 11                  | 3              | 11               | 3              | 11         |
| <b>Fireplace</b>  | Pre-1979       | 15                   | 15             | 15                  | 15             | 15                  | 15             | 15               | 15             | 15         |
|                   | 1979 - 2004    | 15                   | 15             | 15                  | 15             | 15                  | 15             | 15               | 15             | 15         |
|                   | 2005-2007      | 15                   | 15             | 15                  | 15             | 15                  | 15             | 15               | 15             | 15         |
| <b>BBQ</b>        | Pre-1979       | 7                    | 7              | 7                   | 5              | 5                   | 5              | 9                | 5              | 9          |
|                   | 1979 - 2004    | 7                    | 7              | 7                   | 5              | 5                   | 9              | 9                | 9              | 9          |
|                   | 2005-2007      | 7                    | 5              | 7                   | 5              | 5                   | 2              | 9                | 2              | 9          |
| <b>Other</b>      | Pre-1979       | 15                   | 15             | 15                  | 15             | 15                  | 15             | 15               | 15             | 15         |
|                   | 1979 - 2004    | 15                   | 15             | 15                  | 15             | 15                  | 15             | 15               | 15             | 15         |
|                   | 2005-2007      | 15                   | 15             | 15                  | 15             | 15                  | 15             | 15               | 15             | 15         |

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Figure 11 : End Use Saturations  
(based on 2009 RASS)

| End Use    | Vintage   | <u>Single Family</u> | <u>Multi Family<br/>2-4 Units</u> | <u>Multi Family<br/>&gt;4 Units</u> | <u>Master<br/>Meter</u> | <u>Sub Meter</u> |
|------------|-----------|----------------------|-----------------------------------|-------------------------------------|-------------------------|------------------|
| Space Heat | Pre 1979  | 0.9692               | 0.958                             | 0.9178                              | 0.8875                  | 0.913            |
|            | 1979-2004 | 0.9933               | 0.9688                            | 0.9424                              | 0.8161                  | 0.9355           |
|            | 2005-2010 | 0.9753               | 1                                 | 0.8323                              | 0.6471                  | N/A              |
| Water Heat | Pre 1979  | 0.9754               | 0.8194                            | 0.6048                              | 0.8125                  | 0.9022           |
|            | 1979-2004 | 0.9721               | 0.8697                            | 0.6488                              | 0.7816                  | 1                |
|            | 2005-2010 | 0.9899               | 0.9226                            | 0.7649                              | 0.5294                  | N/A              |
| Cooking    | Pre 1979  | 0.7245               | 0.625                             | 0.8623                              | 0.625                   | 0.8696           |
|            | 1979-2004 | 0.7402               | 0.5057                            | 0.791                               | 0.5057                  | 0.9032           |
|            | 2005-2010 | 0.9445               | 0.9235                            | 0.8996                              | 0.8235                  | N/A              |
| Drying     | Pre 1979  | 0.6123               | 0.3606                            | 0.1177                              | 0.3                     | 0.413            |
|            | 1979-2004 | 0.6605               | 0.3706                            | 0.2484                              | 0.4713                  | 0.7097           |
|            | 2005-2010 | 0.7507               | 0.5631                            | 0.4821                              | 0.2941                  | N/A              |
| Pool       | Pre 1979  | 0.04                 | 0.0521                            | 0.1045                              | 0.1179                  | 0.1179           |
|            | 1979-2004 | 0.0626               | 0.1308                            | 0.1941                              | 0.0053                  | 0.0053           |
|            | 2005-2010 | 0.0211               | 0.1308                            | 0.1941                              | 0.0053                  | N/A              |
| Spa        | Pre 1979  | 0.0597               | 0.0526                            | 0.0668                              | 0.1329                  | 0.1329           |
|            | 1979-2004 | 0.1145               | 0.1923                            | 0.2896                              | 0.2012                  | 0.2012           |
|            | 2005-2010 | 0.0952               | 0.1923                            | 0.2896                              | 0.2012                  | N/A              |
| Fireplace  | Pre 1979  | 0.0855               | 0.2634                            | 0.1519                              | 0.1894                  | 0.1894           |
|            | 1979-2004 | 0.1881               | 0.6261                            | 0.4775                              | 0.4156                  | 0.4156           |
|            | 2005-2010 | 0.2949               | 0.6261                            | 0.4775                              | 0.4156                  | N/A              |
| Barbecue   | Pre 1979  | 0.1117               | 0.263                             | 0.0816                              | 0.0875                  | 0.0652           |
|            | 1979-2004 | 0.2055               | 0.4739                            | 0.0721                              | 0.1494                  | 0.0967           |
|            | 2005-2010 | 0.3637               | 0.4405                            | 0.1669                              | 0.0588                  | N/A              |

San Diego Gas And Electric  
Figure 16: Gas Fuel Shares (average)

| End Use       | <u>Single<br/>Family</u> | <u>Multi Family<br/>&gt;4 Units</u> | <u>Master<br/>Meter</u> | <u>Sub<br/>Meter</u> |
|---------------|--------------------------|-------------------------------------|-------------------------|----------------------|
| Space Heating | 0.9399                   | 0.8168                              | 0.771                   | 0.7304               |
| Water Heating | 0.9878                   | 0.9673                              | 0.9356                  | 0.7403               |
| Cooking       | 0.6621                   | 0.744                               | 0.5861                  | 0.6871               |
| Drying        | 0.7592                   | 0.6962                              | 0.8156                  | 0.5469               |
| Pool          | 0.7263                   | 0.7263                              | 0.7263                  | 0.7263               |
| Spa           | 0.5462                   | 0.5819                              | 0.5819                  | 0.5819               |
| Fireplace     | 0.5815                   | 0.5816                              | 0.5816                  | 0.5816               |
| Barbecue      | 0.2814                   | 0.2344                              | 0.3114                  | 0.1364               |

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 Figure 19: Gas Efficiency Shares**

| Gas<br>End-use    | Efficiency<br>Level | Single Family |      | Multi-Family |      | Master Meter |      | Sub Meter |      |
|-------------------|---------------------|---------------|------|--------------|------|--------------|------|-----------|------|
|                   |                     | Existing      | New  | Existing     | New  | Existing     | New  | Existing  | New  |
| <b>Space Heat</b> | Stock               | 0.59          | 0.59 | 0.50         | 0.50 | 0.50         | 0.50 | 0.59      | 0.59 |
|                   | Standard            | 0.34          | 0.34 | 0.48         | 0.48 | 0.48         | 0.48 | 0.34      | 0.34 |
|                   | High                | 0.06          | 0.06 | 0.01         | 0.01 | 0.01         | 0.01 | 0.06      | 0.06 |
|                   | Premium             | 0.01          | 0.01 | 0.01         | 0.01 | 0.01         | 0.01 | 0.01      | 0.01 |
| <b>Water Heat</b> | Stock               | 0.10          | 0.10 | 0.13         | 0.13 | 0.13         | 0.13 | 0.10      | 0.10 |
|                   | Standard            | 0.68          | 0.68 | 0.76         | 0.76 | 0.76         | 0.76 | 0.68      | 0.68 |
|                   | High                | 0.21          | 0.21 | 0.10         | 0.10 | 0.10         | 0.10 | 0.21      | 0.21 |
|                   | Premium             | 0.01          | 0.01 | 0.01         | 0.01 | 0.01         | 0.01 | 0.01      | 0.01 |
| <b>Cooking</b>    | Stock               | 0.90          | 0.90 | 0.95         | 0.95 | 0.95         | 0.95 | 0.95      | 0.95 |
|                   | Standard            | 0.10          | 0.10 | 0.05         | 0.05 | 0.05         | 0.05 | 0.05      | 0.05 |
| <b>Drying</b>     | Stock               | 0.75          | 0.75 | 0.75         | 0.75 | 0.75         | 0.75 | 0.75      | 0.75 |
|                   | Standard            | 0.25          | 0.25 | 0.25         | 0.25 | 0.25         | 0.25 | 0.25      | 0.25 |
| <b>Pool</b>       | Stock               | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Spa</b>        | Stock               | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Fireplace</b>  | Stock               | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Barbeque</b>   | Stock               | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |

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 Figure 1: : Electric Efficiency Shares**

| Electric End-use  | Efficiency Level | Single Family |      | Multi-Family |      | Master Meter |      | Sub Meter |      |
|-------------------|------------------|---------------|------|--------------|------|--------------|------|-----------|------|
|                   |                  | Existing      | New  | Existing     | New  | Existing     | New  | Existing  | New  |
| <b>Space Heat</b> | Stock            | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Water Heat</b> | Stock            | 0.10          | 0.10 | 0.13         | 0.13 | 0.13         | 0.13 | 0.10      | 0.10 |
|                   | Standard         | 0.68          | 0.68 | 0.76         | 0.76 | 0.76         | 0.76 | 0.68      | 0.68 |
|                   | High             | 0.21          | 0.21 | 0.10         | 0.10 | 0.10         | 0.10 | 0.21      | 0.21 |
|                   | Premium          | 0.01          | 0.01 | 0.01         | 0.01 | 0.01         | 0.01 | 0.01      | 0.01 |
| <b>Cooking</b>    | Stock            | 0.90          | 0.90 | 0.95         | 0.95 | 0.95         | 0.95 | 0.95      | 0.95 |
|                   | Standard         | 0.10          | 0.10 | 0.05         | 0.05 | 0.05         | 0.05 | 0.05      | 0.05 |
| <b>Drying</b>     | Stock            | 0.75          | 0.75 | 0.75         | 0.75 | 0.75         | 0.75 | 0.75      | 0.75 |
|                   | Standard         | 0.25          | 0.25 | 0.25         | 0.25 | 0.25         | 0.25 | 0.25      | 0.25 |
| <b>Pool</b>       | Stock            | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Spa</b>        | Stock            | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Fireplace</b>  | Stock            | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |
| <b>Barbecue</b>   | Stock            | 1.00          | 1.00 | 1.00         | 1.00 | 1.00         | 1.00 | 1.00      | 1.00 |



# Triennial Cost Allocation Proceeding

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## CORE COMMERCIAL AND INDUSTRIAL DEMAND FORECAST

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## Introduction

The core commercial and Industrial GN-3 gas demand forecast used the EUForecaster model to generate annual gas demand forecasts for the TCAP Period.

The model segments the core commercial and industrial GN-3 markets into 14 sectors and 11 sectors by type of business activity, respectively. Business activity is determined by the NAICS code assigned to the customer and carried on the customer's billing record. A second segmentation within each specific business type involved further disaggregation into end-uses.

The gas demand forecast that results from the EUForecaster model is at the annual design HDD total of 1,315 for an Average Year. The gas demand forecasts under Cold, Hot and Base temperature were then constructed based on Cold Year (Hdd = 1,673), Hot Year (Hdd=957) and Base Year (Hdd=0) annual assumptions.

This *end use* forecasts under the above four temperature scenarios are then reduced for the EE/DSM savings provided by the EE/DSM group. The post-model adjustments are summarized in tables that follow.

## Data Sources

The key set of information used to perform the modeling and to generate the forecast includes historical year 2010 consumption and customer counts, employment forecasts, gas and electric energy use intensity (EUI) values, end-use saturations, fuel and efficiency shares, gas and electric price forecasts, equipment age, use per meter for existing and new customers, and equipment cost. A description of each component follows:

A. Historical Year 2010 Sales:

The historical data are extracted from the billing tables in the Customer Information System (CIS). The gas consumption by business type was adjusted to 1,315 Average Year Hdd.

B. Employment Data:

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The level of employment in each business type is used as a measure of economic activity in the core commercial and industrial GN-3 demand forecast models. The employment data series matches the NAICS categories used to develop the historical consumption data. The employment data was compiled and totaled for the SDG&E' service territory. The forecast data comes from Global Insight.

### C. Gas Price Data:

— —Average and marginal gas prices (\$/therm) were calculated from forecasts of the GN-3 rate components. We used underlying detailed consumption data to separate monthly consumption for customers by each business type into the respective GN-3 consumption tiers.

For a given business type, the average gas commodity rate for the 12-month period was calculated for each year. The average commodity rate in each forecast year was developed using the same monthly consumption pattern, but with the forecasts of rates for each GN-3 rate tier. The average gas price each year was then calculated by including the non-volumetric customer charges with the year's average gas commodity rate.

Each respective business type's marginal gas commodity rate (for each month) was calculated by "pricing" the entire month's consumption at the GN-3 rate's tier that was the last tier with non-zero consumption, the marginal consumption tier, for the customers of the given business type. The marginal gas price was then calculated as the simple average of the 12 monthly marginal commodity rates. The forecasts for each year used the same monthly consumption pattern, but used the projected GN-3 price of the marginal consumption tier.

#### D. Electric Price Data:

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

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

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

#### E.. Building and Equipment Decay Rates:

Building decay rates are based on the building lifetimes, where the lifetime is defined as the length of time it takes for either a demolition or a major renovation where are major systems are replaced. For existing core buildings and facilities, an exponential rate of decay of 1% per year was assumed, consistent with an average remaining life for existing buildings of 100 years. A building decay rate concept is not relevant to large gas transport (non-core) customers. In both the commercial and industrial non-core models the existing building decay rate was set equal to zero.

Similarly, all new construction decay rates were assumed to be zero over the forecast horizon. This assumption was required because the growth of new buildings and facilities was tied directly to the econometric models.

End-Use lifetimes were derived from a variety of sources.

#### Commercial:

Space heat – 25 years  
Water heat – 15 years  
AC/compressor – 20 years  
All other commercial end-uses – 15 years

Industrial:

Fire-tube boiler – 25 years  
Water-tube boiler – 25 years  
Engine (motors) – 25 years  
All other industrial end-uses – 20 years

F. Equipment Saturations, Fuel Shares, and Efficiency Shares:

EUForecaster defines saturation as the percentage of customers in any segment that has a particular end use, independent of fuel shares. The commercial models developed saturation and fuel share estimates from our others end-use models. EUForecaster adjusted core commercial fuel shares according to a set of fuel-choice equations over the forecast horizon.

End-use saturations in the industrial model were initially set equal to 100%. Industrial end-use gas fuel shares were initially approximated. We then used an iterative procedure to further adjust industrial saturation and fuel shares such that the EUForecaster sales totals matched SDG&E industrial sales figures, and our estimates of electric usage by SDG&E customers. Finally, all commercial and industrial fuel shares were held constant over the forecast horizon.

Energy efficiency varied within the major gas end-uses/processes, including all boilers, space heat, and water heat. Four levels of efficiency were assigned to gas equipment: low, medium (standard) high, and premium for core commercial and three levels of efficiency were assigned to gas equipment: low, medium (standard), and high for core industrial market. California and federal standards have effectively eliminated the lowest efficiency alternatives for several gas end-uses from being purchased as new or replacement equipment. The lowest efficiency alternative for these end uses is, therefore, allowed to exist in the base year stock, but the customer must then purchase either medium (e.g., equipment that just meets Government standards), high or premium efficiency equipment as these units decay. The low efficiency share in the existing equipment stock was set equal to 50%. Medium ranged from 40% to 45%, and high from 5% to 10%.

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

G. DSM Forecast:

The end-use gas demand forecast developed with EUForecaster does not capture the effects of SDG&E's EE/DSM programs. Energy savings goals from the CPUC's mandated energy efficiency/energy conservation programs for the core commercial and industrial were provided by SDG&E's DSM department. These savings are subtracted from the forecast generated by the core commercial and industrial forecasts generated by EUForecaster.

## **G10 COMMERCIAL DATA TABLES**

**San Diego Gas and Electric Company  
 Triennial Cost Allocation Proceeding  
 The Year the Equipment Was Installed by Business Types**

| <u>Sector</u> | <u>Space<br/>Heater</u> | <u>Water<br/>Heater</u> | <u>Cooktop</u> | <u>Griddle</u> | <u>Fryer</u> | <u>Other Cooking<br/>Equipment</u> | <u>Kitchen<br/>Equipment</u> | <u>AC</u> | <u>Dryer</u> | <u>Engine</u> | <u>Other</u> |
|---------------|-------------------------|-------------------------|----------------|----------------|--------------|------------------------------------|------------------------------|-----------|--------------|---------------|--------------|
| Office        | 1977                    | 1978                    | 1974           | 1978           | 1979         | 1976                               | 1980                         | 1975      | 1978         | 1975          | 1973         |
| Restaurant    | 1980                    | 1983                    | 1980           | 1980           | 1982         | 1981                               | 1983                         | 1977      | 1983         | 1978          | 1980         |
| Retail        | 1976                    | 1979                    | 1977           | 1977           | 1984         | 1981                               | 1977                         | 1976      | 1978         | 1984          | 1977         |
| Laundry       | 1979                    | 1975                    | 1981           | 1986           | 1986         | 1986                               | 1986                         | 1975      | 1976         |               | 1975         |
| Warehouse     | 1977                    | 1977                    | 1975           | 1981           | 1979         | 1979                               | 1939                         | 1975      | 1983         | 1981          | 1978         |
| School        | 1975                    | 1977                    | 1971           | 1972           | 1975         | 1972                               | 1972                         | 1973      | 1975         | 1974          | 1972         |
| College       | 1974                    | 1976                    | 1973           | 1974           | 1975         | 1975                               | 1973                         | 1979      | 1974         | 1973          | 1970         |
| Health        | 1976                    | 1979                    | 1974           | 1975           | 1977         | 1975                               | 1973                         | 1975      | 1977         | 1974          | 1975         |
| Lodging       | 1974                    | 1981                    | 1975           | 1979           | 1983         | 1979                               | 1984                         | 1975      | 1980         | 1975          | 1981         |
| Misc          | 1974                    | 1977                    | 1972           | 1972           | 1976         | 1973                               | 1979                         | 1974      | 1978         | 1974          | 1978         |
| Government    | 1975                    | 1977                    | 1973           | 1979           | 1975         | 1976                               | 1978                         | 1975      | 1980         | 1978          | 1972         |
| TIU           | 1975                    | 1979                    | 1975           | 1978           | 1982         | 1979                               | 1990                         | 1975      | 1983         | 1978          | 1981         |
| Construction  | 1977                    | 1977                    | 1972           | 1974           | 1975         | 1974                               | 1953                         | 1973      | 1980         | 1975          | 1976         |
| Agriculture   | 1982                    | 1980                    | 1973           | 1979           | 1980         | 1979                               | 1970                         | 1976      | 1971         | 1987          | 1985         |



San Diego Gas and Electric  
 Incremental Meter Forecast by Business Type

| <b>SDG&amp;E Gas</b> | Office    | Restaurant | Retail     | Laundry   | Warehouse  | School    | College   | Health    | Lodging   | Misc       | Government | TCU       | Construction | Agriculture |
|----------------------|-----------|------------|------------|-----------|------------|-----------|-----------|-----------|-----------|------------|------------|-----------|--------------|-------------|
| Actual Meters        |           |            |            |           |            |           |           |           |           |            |            |           |              |             |
| 2009                 | 6,459     | 5,034      | 3,273      | 516       | 652        | 770       | 318       | 722       | 770       | 4,795      | 1,527      | 685       | 820          | 139         |
| 2010                 | 6,530     | 5,117      | 3,188      | 508       | 636        | 784       | 340       | 714       | 762       | 4,758      | 1,524      | 678       | 752          | 139         |
| Meter CHANGES        | Office    | Restaurant | Retail     | Laundry   | Warehouse  | School    | College   | Health    | Lodging   | Misc       | Government | TCU       | Construction | Agriculture |
| <b>2010</b>          | <b>71</b> | <b>83</b>  | <b>-85</b> | <b>-8</b> | <b>-16</b> | <b>14</b> | <b>22</b> | <b>-8</b> | <b>-8</b> | <b>-37</b> | <b>-3</b>  | <b>-7</b> | <b>-68</b>   | <b>0</b>    |
| 2011                 | 174       | 8          | -48        | -2        | -11        | 18        | 8         | 24        | 2         | -9         | -60        | -2        | -20          | -2          |
| 2012                 | 60        | -4         | 1          | -5        | 0          | 13        | 6         | 17        | -1        | -19        | -68        | 41        | 16           | -2          |
| 2013                 | 88        | -19        | -24        | -5        | 1          | -10       | -4        | -13       | -6        | -17        | -42        | 7         | 97           | -3          |
| 2014                 | 167       | -29        | -38        | -7        | 0          | -13       | -6        | -17       | -9        | -24        | -37        | -6        | 77           | -3          |
| 2015                 | 117       | -31        | -40        | -5        | 4          | -4        | -2        | -6        | -9        | -19        | -36        | 13        | 86           | -3          |
| 2016                 | 82        | -28        | -41        | -3        | 7          | 14        | 6         | 19        | -8        | -10        | -23        | 6         | 55           | -2          |

| <b>San Diego Gas and Electric</b>          |                    |                            |                        |                             |                           |                       |                        |                        |                     |                       |                           |                       |                       |                    |                          |
|--|--------------------|----------------------------|------------------------|-----------------------------|---------------------------|-----------------------|------------------------|------------------------|---------------------|-----------------------|---------------------------|-----------------------|-----------------------|--------------------|--------------------------|
| <b>Average Gas Prices (Dollars/Therm)</b>  |                    |                            |                        |                             |                           |                       |                        |                        |                     |                       |                           |                       |                       |                    |                          |
| Year                                       | Com Price Deflator | Agriculture Average Price  | College Average Price  | Construction Average Price  | Government Average Price  | Health Average Price  | Laundry Average Price  | Lodging Average Price  | Misc Average Price  | Office Average Price  | Restaurant Average Price  | Retail Average Price  | School Average Price  | TCU Average Price  | Warehouse Average Price  |
| 2010                                       | 100.00             | 0.7921                     | 0.8583                 | 0.8346                      | 0.8332                    | 0.7852                | 0.8413                 | 0.7531                 | 0.7729              | 0.7743                | 0.8286                    | 0.7494                | 0.7563                | 0.8699             | 0.7548                   |
| 2011                                       | 101.20             | 0.7571                     | 0.8225                 | 0.7992                      | 0.7976                    | 0.7503                | 0.8057                 | 0.7184                 | 0.7380              | 0.7394                | 0.7933                    | 0.7148                | 0.7216                | 0.8344             | 0.7201                   |
| 2012                                       | 102.96             | 0.8171                     | 0.8825                 | 0.8591                      | 0.8576                    | 0.8103                | 0.8657                 | 0.7784                 | 0.7980              | 0.7993                | 0.8533                    | 0.7748                | 0.7816                | 0.8944             | 0.7800                   |
| 2013                                       | 104.98             | 0.8371                     | 0.8945                 | 0.8751                      | 0.8717                    | 0.8310                | 0.8804                 | 0.8012                 | 0.8187              | 0.8196                | 0.8704                    | 0.7983                | 0.8047                | 0.9097             | 0.8025                   |
| 2014                                       | 107.37             | 0.8635                     | 0.9228                 | 0.9025                      | 0.8995                    | 0.8573                | 0.9080                 | 0.8270                 | 0.8450              | 0.8460                | 0.8975                    | 0.8240                | 0.8304                | 0.9372             | 0.8284                   |
| 2015                                       | 109.91             | 0.9751                     | 1.0362                 | 1.0150                      | 1.0124                    | 0.9688                | 1.0208                 | 0.9380                 | 0.9564              | 0.9575                | 1.0097                    | 0.9348                | 0.9413                | 1.0499             | 0.9394                   |
| 2016                                       | 112.45             | 1.0153                     | 1.0782                 | 1.0561                      | 1.0540                    | 1.0088                | 1.0623                 | 0.9775                 | 0.9965              | 0.9977                | 1.0506                    | 0.9742                | 0.9808                | 1.0912             | 0.9791                   |
| <b>San Diego Gas and Electric</b>          |                    |                            |                        |                             |                           |                       |                        |                        |                     |                       |                           |                       |                       |                    |                          |
| <b>Marginal Gas Prices (Dollars/Therm)</b> |                    |                            |                        |                             |                           |                       |                        |                        |                     |                       |                           |                       |                       |                    |                          |
| Year                                       | Com Price Deflator | Agriculture Marginal Price | College Marginal Price | Construction Marginal Price | Government Marginal Price | Health Marginal Price | Laundry Marginal Price | Lodging Marginal Price | Misc Marginal Price | Office Marginal Price | Restaurant Marginal Price | Retail Marginal Price | School Marginal Price | TCU Marginal Price | Warehouse Marginal Price |
| 2010                                       | 100.00             | 0.7449                     | 0.8074                 | 0.7688                      | 0.7822                    | 0.7397                | 0.7886                 | 0.7242                 | 0.7339              | 0.7382                | 0.7661                    | 0.7203                | 0.7242                | 0.7801             | 0.7275                   |
| 2011                                       | 101.20             | 0.7103                     | 0.7719                 | 0.7339                      | 0.7471                    | 0.7051                | 0.7534                 | 0.6898                 | 0.6994              | 0.7036                | 0.7312                    | 0.6859                | 0.6898                | 0.7450             | 0.6931                   |
| 2012                                       | 102.96             | 0.7703                     | 0.8319                 | 0.7939                      | 0.8071                    | 0.7651                | 0.8134                 | 0.7497                 | 0.7594              | 0.7636                | 0.7912                    | 0.7459                | 0.7497                | 0.8049             | 0.7530                   |
| 2013                                       | 104.98             | 0.7933                     | 0.8478                 | 0.8142                      | 0.8259                    | 0.7888                | 0.8314                 | 0.7752                 | 0.7837              | 0.7874                | 0.8118                    | 0.7718                | 0.7752                | 0.8240             | 0.7781                   |
| 2014                                       | 107.37             | 0.8190                     | 0.8752                 | 0.8405                      | 0.8526                    | 0.8144                | 0.8583                 | 0.8004                 | 0.8092              | 0.8130                | 0.8381                    | 0.7969                | 0.8004                | 0.8506             | 0.8034                   |
| 2015                                       | 109.91             | 0.9300                     | 0.9877                 | 0.9521                      | 0.9645                    | 0.9251                | 0.9703                 | 0.9108                 | 0.9198              | 0.9237                | 0.9496                    | 0.9072                | 0.9107                | 0.9625             | 0.9138                   |
| 2016                                       | 112.45             | 0.9695                     | 1.0289                 | 0.9922                      | 1.0050                    | 0.9645                | 1.0110                 | 0.9497                 | 0.9590              | 0.9631                | 0.9896                    | 0.9460                | 0.9497                | 1.0029             | 0.9529                   |

| San Diego Gas and Electric           |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
|--------------------------------------|------------------------------|--------------------------|-------------------------------|-----------------------------|-------------------------|--------------------------|--------------------------|-----------------------|-------------------------|-----------------------------|-------------------------|-------------------------|----------------------|----------------------------|--|
| Average Electric Prices (Cents/KWh)  |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
| Year                                 | C Agriculture Average Price  | C College Average Price  | C Construction Average Price  | C Government Average Price  | C Health Average Price  | C Laundry Average Price  | C Lodging Average Price  | C Misc Average Price  | C Office Average Price  | C Restaurant Average Price  | C Retail Average Price  | C School Average Price  | C TCU Average Price  | C Warehouse Average Price  |  |
| 2010                                 | 17.74                        | 19.22                    | 18.69                         | 18.66                       | 17.59                   | 18.84                    | 16.87                    | 17.31                 | 17.34                   | 18.56                       | 16.78                   | 16.94                   | 19.48                | 16.90                      |  |
| 2011                                 | 17.46                        | 18.97                    | 18.43                         | 18.39                       | 17.31                   | 18.58                    | 16.57                    | 17.02                 | 17.05                   | 18.30                       | 16.48                   | 16.64                   | 19.24                | 16.61                      |  |
| 2012                                 | 17.77                        | 19.19                    | 18.68                         | 18.65                       | 17.62                   | 18.83                    | 16.93                    | 17.35                 | 17.38                   | 18.56                       | 16.85                   | 17.00                   | 19.45                | 16.96                      |  |
| 2013                                 | 20.07                        | 21.45                    | 20.98                         | 20.90                       | 19.92                   | 21.11                    | 19.21                    | 19.63                 | 19.65                   | 20.87                       | 19.14                   | 19.29                   | 21.81                | 19.24                      |  |
| 2014                                 | 21.08                        | 22.52                    | 22.03                         | 21.95                       | 20.93                   | 22.16                    | 20.18                    | 20.62                 | 20.65                   | 21.91                       | 20.11                   | 20.27                   | 22.88                | 20.22                      |  |
| 2015                                 | 21.80                        | 23.16                    | 22.69                         | 22.63                       | 21.66                   | 22.82                    | 20.97                    | 21.38                 | 21.41                   | 22.57                       | 20.90                   | 21.04                   | 23.47                | 21.00                      |  |
| 2016                                 | 22.25                        | 23.63                    | 23.14                         | 23.09                       | 22.11                   | 23.28                    | 21.42                    | 21.83                 | 21.86                   | 23.02                       | 21.35                   | 21.49                   | 23.91                | 21.45                      |  |
|                                      |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
|                                      |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
| San Diego Gas and Electric           |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
| Marginal Electric Prices (Cents/KWh) |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
| Year                                 | C Agriculture Marginal Price | C College Marginal Price | C Construction Marginal Price | C Government Marginal Price | C Health Marginal Price | C Laundry Marginal Price | C Lodging Marginal Price | C Misc Marginal Price | C Office Marginal Price | C Restaurant Marginal Price | C Retail Marginal Price | C School Marginal Price | C TCU Marginal Price | C Warehouse Marginal Price |  |
| 2010                                 | 17.73                        | 19.21                    | 18.29                         | 18.61                       | 17.60                   | 18.76                    | 17.23                    | 17.46                 | 17.56                   | 18.23                       | 17.14                   | 17.23                   | 18.56                | 17.31                      |  |
| 2011                                 | 17.44                        | 18.96                    | 18.02                         | 18.35                       | 17.32                   | 18.50                    | 16.94                    | 17.18                 | 17.28                   | 17.96                       | 16.85                   | 16.94                   | 18.30                | 17.02                      |  |
| 2012                                 | 17.75                        | 19.18                    | 18.30                         | 18.60                       | 17.64                   | 18.75                    | 17.28                    | 17.50                 | 17.60                   | 18.24                       | 17.19                   | 17.28                   | 18.55                | 17.36                      |  |
| 2013                                 | 20.05                        | 21.43                    | 20.58                         | 20.87                       | 19.93                   | 21.01                    | 19.59                    | 19.81                 | 19.90                   | 20.52                       | 19.50                   | 19.59                   | 20.82                | 19.66                      |  |
| 2014                                 | 21.06                        | 22.50                    | 21.61                         | 21.92                       | 20.94                   | 22.07                    | 20.58                    | 20.80                 | 20.90                   | 21.55                       | 20.49                   | 20.58                   | 21.87                | 20.65                      |  |
| 2015                                 | 21.78                        | 23.14                    | 22.30                         | 22.59                       | 21.67                   | 22.73                    | 21.33                    | 21.54                 | 21.64                   | 22.24                       | 21.25                   | 21.33                   | 22.54                | 21.41                      |  |
| 2016                                 | 22.23                        | 23.60                    | 22.76                         | 23.05                       | 22.12                   | 23.19                    | 21.78                    | 21.99                 | 22.09                   | 22.70                       | 21.70                   | 21.78                   | 23.00                | 21.85                      |  |
|                                      |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |
|                                      |                              |                          |                               |                             |                         |                          |                          |                       |                         |                             |                         |                         |                      |                            |  |

San Diego Gas and Electric  
 2010 Historical Data

| Segment      | 2010 Therm Sales | 2010 Meter Count | Meter Count, Existing/Old | Count New Customers | Per Meter Existing Customer s | Per Meter New Customer s | Price Elasticity |
|--------------|------------------|------------------|---------------------------|---------------------|-------------------------------|--------------------------|------------------|
| Office       | 14,923,541       | 6,530            | 6,446                     | 84                  | 2,279                         | 2,750                    | -0.072000        |
| Restaurant   | 52,624,624       | 5,117            | 5,047                     | 70                  | 10,386                        | 2,966                    | -0.001000        |
| Retail       | 12,705,087       | 3,188            | 3,157                     | 31                  | 3,986                         | 3,879                    | -0.032000        |
| Laundry      | 13,592,344       | 508              | 505                       | 3                   | 26,882                        | 5,674                    | -0.026000        |
| Warehouse    | 3,981,426        | 636              | 629                       | 7                   | 6,228                         | 9,170                    | -0.000010        |
| School       | 8,925,595        | 784              | 779                       | 5                   | 11,448                        | 1,450                    | -0.103000        |
| College      | 5,933,634        | 340              | 332                       | 8                   | 17,820                        | 2,171                    | -0.090000        |
| Health       | 12,363,418       | 714              | 707                       | 7                   | 17,366                        | 12,199                   | -0.052000        |
| Lodging      | 12,560,854       | 762              | 754                       | 8                   | 16,617                        | 3,981                    | -0.013000        |
| Misc         | 15,820,213       | 4,758            | 4,507                     | 251                 | 3,403                         | 1,930                    | -0.030000        |
| Government   | 5,795,468        | 1,524            | 1,504                     | 20                  | 3,656                         | 14,862                   | -0.061000        |
| TCU          | 7,489,090        | 678              | 675                       | 3                   | 11,093                        | 421                      | -0.062000        |
| Construction | 1,599,500        | 752              | 726                       | 26                  | 2,172                         | 871                      | -0.179000        |
| Agriculture  | 8,009,985        | 139              | 137                       | 2                   | 58,465                        | 147                      | -0.059000        |

San Diego Gas and Electric Company  
 Average Use Per Meter (therms)

| Sector       | Space Heater | Water Heater | Cooktop | Griddle | Fryer | Other Cooking Equipment | Kitchen Equipment | AC  | Dryer | Engine | Other | Total Building |        |
|--------------|--------------|--------------|---------|---------|-------|-------------------------|-------------------|-----|-------|--------|-------|----------------|--------|
| Office       | 1,893        | 786          | 96      | 32      | 24    | 99                      |                   | 21  | 32    | 94     | 27    | 1,887          | 4,992  |
| Restaurant   | 2,554        | 1,061        | 129     | 43      | 33    | 134                     |                   | 29  | 44    | 127    | 36    | 2,547          | 6,737  |
| Retail       | 1,385        | 575          | 70      | 23      | 18    | 73                      |                   | 16  | 24    | 69     | 20    | 1,381          | 3,654  |
| Laundry      | 4,232        | 1,757        | 214     | 71      | 54    | 222                     |                   | 48  | 73    | 211    | 60    | 4,220          | 11,162 |
| Warehouse    | 1,889        | 784          | 96      | 32      | 24    | 99                      |                   | 21  | 32    | 94     | 27    | 1,884          | 4,983  |
| School       | 1,750        | 727          | 89      | 29      | 22    | 92                      |                   | 20  | 30    | 87     | 25    | 1,745          | 4,616  |
| College      | 6,970        | 2,894        | 353     | 117     | 90    | 365                     |                   | 78  | 119   | 347    | 99    | 6,950          | 18,384 |
| Health       | 5,542        | 2,301        | 281     | 93      | 71    | 290                     |                   | 62  | 95    | 276    | 79    | 5,525          | 14,615 |
| Lodging      | 7,834        | 3,253        | 397     | 132     | 101   | 410                     |                   | 88  | 134   | 391    | 112   | 7,811          | 20,662 |
| Misc         | 1,267        | 526          | 64      | 21      | 16    | 66                      |                   | 14  | 22    | 63     | 18    | 1,263          | 3,341  |
| Government   | 4,857        | 2,016        | 246     | 82      | 62    | 254                     |                   | 55  | 83    | 242    | 69    | 4,842          | 12,809 |
| TCU          | 3,537        | 1,469        | 179     | 60      | 45    | 185                     |                   | 40  | 61    | 176    | 50    | 3,527          | 9,330  |
| Construction | 687          | 285          | 35      | 12      | 9     | 36                      |                   | 8   | 12    | 34     | 10    | 685            | 1,811  |
| Agriculture  | 9,047        | 3,756        | 458     | 152     | 116   | 474                     |                   | 102 | 155   | 451    | 129   | 9,021          | 23,861 |

**San Diego Gas and Electric Company  
Triennial Cost Allocation Proceeding  
UEC, Equipment Cost and Efficiency Shares**

Where Fuel = 1 (gas) and = 2 (electric), and  
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| Office                | Space_Heat     | 1           | 1                 | 0.3046                     | 4.3149                | 0.65                     |
| Office                | Space_Heat     | 1           | 2                 | 0.2742                     | 4.7464                | 0.3                      |
| Office                | Space_Heat     | 1           | 3                 | 0.2495                     | 5.1779                | 0.04                     |
| Office                | Space_Heat     | 1           | 4                 | 0.2248                     | 5.6094                | 0.01                     |
| Office                | Space_Heat     | 2           | 1                 | 6.2481                     | 3.4519                | 1                        |
| Office                | Space_Heat     | 2           | 2                 | 5.6233                     | 3.7971                | 0                        |
| Office                | Space_Heat     | 2           | 3                 | 5.1172                     | 4.1423                | 0                        |
| Office                | Space_Heat     | 2           | 4                 | 4.6111                     | 4.4875                | 0                        |
| Office                | Water_Heat     | 1           | 1                 | 0.0474                     | 0.6712                | 0.4                      |
| Office                | Water_Heat     | 1           | 2                 | 0.0427                     | 0.7384                | 0.5                      |
| Office                | Water_Heat     | 1           | 3                 | 0.0373                     | 0.8055                | 0.08                     |
| Office                | Water_Heat     | 1           | 4                 | 0.032                      | 0.8726                | 0.02                     |
| Office                | Water_Heat     | 2           | 1                 | 0.972                      | 0.537                 | 0.4                      |
| Office                | Water_Heat     | 2           | 2                 | 0.8748                     | 0.5907                | 0.5                      |
| Office                | Water_Heat     | 2           | 3                 | 0.7654                     | 0.6444                | 0.08                     |
| Office                | Water_Heat     | 2           | 4                 | 0.6561                     | 0.6981                | 0.02                     |
| Office                | Cooking        | 1           | 1                 | 0.0346                     | 0.4899                | 0.65                     |
| Office                | Cooking        | 1           | 2                 | 0.0311                     | 0.5389                | 0.35                     |
| Office                | Cooking        | 2           | 1                 | 0.7094                     | 0.3919                | 0.65                     |
| Office                | Cooking        | 2           | 2                 | 0.6385                     | 0.4311                | 0.35                     |
| Office                | AC_Compressor  | 1           | 1                 | 0.1043                     | 1.4773                | 0.65                     |
| Office                | AC_Compressor  | 1           | 2                 | 0.0939                     | 1.6251                | 0.35                     |
| Office                | AC_Compressor  | 2           | 1                 | 2.1392                     | 1.1819                | 0.65                     |
| Office                | AC_Compressor  | 2           | 2                 | 1.9253                     | 1.3                   | 0.35                     |
| Office                | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Office                | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Restaurant            | Space_Heat     | 1           | 1                 | 0.1177                     | 1.5841                | 0.65                     |
| Restaurant            | Space_Heat     | 1           | 2                 | 0.1059                     | 1.7425                | 0.3                      |
| Restaurant            | Space_Heat     | 1           | 3                 | 0.0964                     | 1.9009                | 0.04                     |
| Restaurant            | Space_Heat     | 1           | 4                 | 0.0868                     | 2.0593                | 0.01                     |
| Restaurant            | Space_Heat     | 2           | 1                 | 2.4134                     | 1.2673                | 1                        |
| Restaurant            | Space_Heat     | 2           | 2                 | 2.1721                     | 1.394                 | 0                        |
| Restaurant            | Space_Heat     | 2           | 3                 | 1.9766                     | 1.5207                | 0                        |
| Restaurant            | Space_Heat     | 2           | 4                 | 1.7811                     | 1.6474                | 0                        |
| Restaurant            | Water_Heat     | 1           | 1                 | 0.8666                     | 11.666                | 0.4                      |
| Restaurant            | Water_Heat     | 1           | 2                 | 0.7799                     | 12.8326               | 0.5                      |
| Restaurant            | Water_Heat     | 1           | 3                 | 0.6824                     | 13.9992               | 0.08                     |
| Restaurant            | Water_Heat     | 1           | 4                 | 0.5849                     | 15.1658               | 0.02                     |
| Restaurant            | Water_Heat     | 2           | 1                 | 17.7736                    | 9.3328                | 0.4                      |
| Restaurant            | Water_Heat     | 2           | 2                 | 15.9962                    | 10.2661               | 0.5                      |
| Restaurant            | Water_Heat     | 2           | 3                 | 13.9967                    | 11.1994               | 0.08                     |
| Restaurant            | Water_Heat     | 2           | 4                 | 11.9972                    | 12.1327               | 0.02                     |
| Restaurant            | Cook_top       | 1           | 1                 | 1.1985                     | 16.1343               | 0.65                     |
| Restaurant            | Cook_top       | 1           | 2                 | 1.0787                     | 17.7477               | 0.35                     |
| Restaurant            | Cook_top       | 2           | 1                 | 24.5811                    | 12.9074               | 0.65                     |
| Restaurant            | Cook_top       | 2           | 2                 | 22.123                     | 14.1981               | 0.35                     |
| Restaurant            | Fryer          | 1           | 1                 | 1.0791                     | 14.5274               | 0.65                     |
| Restaurant            | Fryer          | 1           | 2                 | 0.9712                     | 15.9802               | 0.35                     |
| Restaurant            | Fryer          | 2           | 1                 | 22.133                     | 11.622                | 0.65                     |
| Restaurant            | Fryer          | 2           | 2                 | 19.9197                    | 12.7841               | 0.35                     |
| Restaurant            | Griddle        | 1           | 1                 | 0.9107                     | 12.2603               | 0.65                     |
| Restaurant            | Griddle        | 1           | 2                 | 0.8197                     | 13.4863               | 0.35                     |
| Restaurant            | Griddle        | 2           | 1                 | 18.6789                    | 9.8082                | 0.65                     |
| Restaurant            | Griddle        | 2           | 2                 | 16.8111                    | 10.789                | 0.35                     |
| Restaurant            | Other_Cooking  | 1           | 1                 | 0.9712                     | 13.0747               | 0.65                     |
| Restaurant            | Other_Cooking  | 1           | 2                 | 0.8741                     | 14.3822               | 0.35                     |
| Restaurant            | Other_Cooking  | 2           | 1                 | 19.9197                    | 10.4598               | 0.65                     |
| Restaurant            | Other_Cooking  | 2           | 2                 | 17.9278                    | 11.5057               | 0.35                     |
| Restaurant            | AC_Compressor  | 1           | 1                 | 0.2028                     | 2.7306                | 0.65                     |
| Restaurant            | AC_Compressor  | 1           | 2                 | 0.1826                     | 3.0036                | 0.35                     |
| Restaurant            | AC_Compressor  | 2           | 1                 | 4.1601                     | 2.1844                | 0.65                     |

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| Restaurant            | AC_Compressor  | 2           | 2                 | 3.7441                     | 2.4029                | 0.35                     |
| Restaurant            | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Restaurant            | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Retail                | Space_Heat     | 1           | 1                 | 0.2455                     | 3.5122                | 0.65                     |
| Retail                | Space_Heat     | 1           | 2                 | 0.221                      | 3.8634                | 0.3                      |
| Retail                | Space_Heat     | 1           | 3                 | 0.2011                     | 4.2146                | 0.04                     |
| Retail                | Space_Heat     | 1           | 4                 | 0.1812                     | 4.5658                | 0.01                     |
| Retail                | Space_Heat     | 2           | 1                 | 5.0356                     | 2.8097                | 1                        |
| Retail                | Space_Heat     | 2           | 2                 | 4.532                      | 3.0907                | 0                        |
| Retail                | Space_Heat     | 2           | 3                 | 4.1241                     | 3.3717                | 0                        |
| Retail                | Space_Heat     | 2           | 4                 | 3.7163                     | 3.6527                | 0                        |
| Retail                | Water_Heat     | 1           | 1                 | 0.1093                     | 1.563                 | 0.4                      |
| Retail                | Water_Heat     | 1           | 2                 | 0.0983                     | 1.7193                | 0.5                      |
| Retail                | Water_Heat     | 1           | 3                 | 0.086                      | 1.8756                | 0.08                     |
| Retail                | Water_Heat     | 1           | 4                 | 0.0738                     | 2.0319                | 0.02                     |
| Retail                | Water_Heat     | 2           | 1                 | 2.2409                     | 1.2504                | 0.4                      |
| Retail                | Water_Heat     | 2           | 2                 | 2.0168                     | 1.3754                | 0.5                      |
| Retail                | Water_Heat     | 2           | 3                 | 1.7647                     | 1.5004                | 0.08                     |
| Retail                | Water_Heat     | 2           | 4                 | 1.5126                     | 1.6255                | 0.02                     |
| Retail                | Cooking        | 1           | 1                 | 0.3079                     | 4.4039                | 0.65                     |
| Retail                | Cooking        | 1           | 2                 | 0.2771                     | 4.8443                | 0.35                     |
| Retail                | Cooking        | 2           | 1                 | 6.3142                     | 3.5231                | 0.65                     |
| Retail                | Cooking        | 2           | 2                 | 5.683                      | 3.875                 | 0.35                     |
| Retail                | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Retail                | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Laundry               | Space_Heat     | 1           | 1                 | 0.147                      | 1.836                 | 0.65                     |
| Laundry               | Space_Heat     | 1           | 2                 | 0.132                      | 2.02                  | 0.3                      |
| Laundry               | Space_Heat     | 1           | 3                 | 0.12                       | 2.203                 | 0.04                     |
| Laundry               | Space_Heat     | 1           | 4                 | 0.108                      | 2.387                 | 0.01                     |
| Laundry               | Space_Heat     | 2           | 1                 | 3.012                      | 1.469                 | 1                        |
| Laundry               | Space_Heat     | 2           | 2                 | 2.711                      | 1.616                 | 0                        |
| Laundry               | Space_Heat     | 2           | 3                 | 2.467                      | 1.763                 | 0                        |
| Laundry               | Space_Heat     | 2           | 4                 | 2.223                      | 1.909                 | 0                        |
| Laundry               | Water_Heat     | 1           | 1                 | 2.76                       | 34.512                | 0.4                      |
| Laundry               | Water_Heat     | 1           | 2                 | 2.484                      | 37.963                | 0.5                      |
| Laundry               | Water_Heat     | 1           | 3                 | 2.174                      | 41.414                | 0.08                     |
| Laundry               | Water_Heat     | 1           | 4                 | 1.863                      | 44.865                | 0.02                     |
| Laundry               | Water_Heat     | 2           | 1                 | 56.617                     | 27.609                | 0.4                      |
| Laundry               | Water_Heat     | 2           | 2                 | 50.955                     | 30.37                 | 0.5                      |
| Laundry               | Water_Heat     | 2           | 3                 | 44.586                     | 33.131                | 0.08                     |
| Laundry               | Water_Heat     | 2           | 4                 | 38.216                     | 35.892                | 0.02                     |
| Laundry               | Drying         | 1           | 1                 | 14.937                     | 186.738               | 0.65                     |
| Laundry               | Drying         | 1           | 2                 | 13.443                     | 205.412               | 0.35                     |
| Laundry               | Drying         | 2           | 1                 | 306.348                    | 149.39                | 0.65                     |
| Laundry               | Drying         | 2           | 2                 | 275.713                    | 164.329               | 0.35                     |
| Laundry               | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Laundry               | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Warehouse             | Space_Heat     | 1           | 1                 | 0.621                      | 7.909                 | 0.65                     |
| Warehouse             | Space_Heat     | 1           | 2                 | 0.559                      | 8.7                   | 0.3                      |
| Warehouse             | Space_Heat     | 1           | 3                 | 0.509                      | 9.491                 | 0.04                     |
| Warehouse             | Space_Heat     | 1           | 4                 | 0.458                      | 10.282                | 0.01                     |
| Warehouse             | Space_Heat     | 2           | 1                 | 12.739                     | 6.327                 | 1                        |
| Warehouse             | Space_Heat     | 2           | 2                 | 11.465                     | 6.96                  | 0                        |
| Warehouse             | Space_Heat     | 2           | 3                 | 10.433                     | 7.593                 | 0                        |
| Warehouse             | Space_Heat     | 2           | 4                 | 9.401                      | 8.225                 | 0                        |
| Warehouse             | Water_Heat     | 1           | 1                 | 0.205                      | 2.608                 | 0.4                      |
| Warehouse             | Water_Heat     | 1           | 2                 | 0.184                      | 2.869                 | 0.5                      |
| Warehouse             | Water_Heat     | 1           | 3                 | 0.161                      | 3.13                  | 0.08                     |
| Warehouse             | Water_Heat     | 1           | 4                 | 0.138                      | 3.39                  | 0.02                     |
| Warehouse             | Water_Heat     | 2           | 1                 | 4.2                        | 2.086                 | 0.4                      |
| Warehouse             | Water_Heat     | 2           | 2                 | 3.78                       | 2.295                 | 0.5                      |
| Warehouse             | Water_Heat     | 2           | 3                 | 3.308                      | 2.504                 | 0.08                     |
| Warehouse             | Water_Heat     | 2           | 4                 | 2.835                      | 2.712                 | 0.02                     |
| Warehouse             | Engine         | 1           | 1                 | 8.884                      | 113.127               | 0.65                     |
| Warehouse             | Engine         | 1           | 2                 | 7.995                      | 124.44                | 0.35                     |
| Warehouse             | Engine         | 2           | 1                 | 182.207                    | 90.502                | 0.65                     |
| Warehouse             | Engine         | 2           | 2                 | 163.986                    | 99.552                | 0.35                     |
| Warehouse             | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Warehouse             | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| School                | Space_Heat     | 1           | 1                 | 0.092                      | 1.225                 | 0.65                     |
| School                | Space_Heat     | 1           | 2                 | 0.083                      | 1.348                 | 0.3                      |

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| School                | Space_Heat     | 1           | 3                 | 0.076                      | 1.471                 | 0.04                     |
| School                | Space_Heat     | 1           | 4                 | 0.068                      | 1.593                 | 0.01                     |
| School                | Space_Heat     | 2           | 1                 | 1.895                      | 0.98                  | 1                        |
| School                | Space_Heat     | 2           | 2                 | 1.705                      | 1.078                 | 0                        |
| School                | Space_Heat     | 2           | 3                 | 1.552                      | 1.176                 | 0                        |
| School                | Space_Heat     | 2           | 4                 | 1.398                      | 1.274                 | 0                        |
| School                | Water_Heat     | 1           | 1                 | 0.123                      | 1.635                 | 0.4                      |
| School                | Water_Heat     | 1           | 2                 | 0.111                      | 1.799                 | 0.5                      |
| School                | Water_Heat     | 1           | 3                 | 0.097                      | 1.962                 | 0.08                     |
| School                | Water_Heat     | 1           | 4                 | 0.083                      | 2.126                 | 0.02                     |
| School                | Water_Heat     | 2           | 1                 | 2.528                      | 1.308                 | 0.4                      |
| School                | Water_Heat     | 2           | 2                 | 2.276                      | 1.439                 | 0.5                      |
| School                | Water_Heat     | 2           | 3                 | 1.991                      | 1.57                  | 0.08                     |
| School                | Water_Heat     | 2           | 4                 | 1.707                      | 1.701                 | 0.02                     |
| School                | Cook_top       | 1           | 1                 | 0.046                      | 0.61                  | 0.65                     |
| School                | Cook_top       | 1           | 2                 | 0.041                      | 0.671                 | 0.35                     |
| School                | Cook_top       | 2           | 1                 | 0.943                      | 0.488                 | 0.65                     |
| School                | Cook_top       | 2           | 2                 | 0.849                      | 0.537                 | 0.35                     |
| School                | Fryer          | 1           | 1                 | 0.046                      | 0.612                 | 0.65                     |
| School                | Fryer          | 1           | 2                 | 0.041                      | 0.673                 | 0.35                     |
| School                | Fryer          | 2           | 1                 | 0.946                      | 0.489                 | 0.65                     |
| School                | Fryer          | 2           | 2                 | 0.851                      | 0.538                 | 0.35                     |
| School                | Griddle        | 1           | 1                 | 0.046                      | 0.612                 | 0.65                     |
| School                | Griddle        | 1           | 2                 | 0.041                      | 0.673                 | 0.35                     |
| School                | Griddle        | 2           | 1                 | 0.946                      | 0.489                 | 0.65                     |
| School                | Griddle        | 2           | 2                 | 0.851                      | 0.538                 | 0.35                     |
| School                | Other_Cooking  | 1           | 1                 | 0.046                      | 0.61                  | 0.65                     |
| School                | Other_Cooking  | 1           | 2                 | 0.041                      | 0.671                 | 0.35                     |
| School                | Other_Cooking  | 2           | 1                 | 0.943                      | 0.488                 | 0.65                     |
| School                | Other_Cooking  | 2           | 2                 | 0.849                      | 0.537                 | 0.35                     |
| School                | AC_Compressor  | 1           | 1                 | 0.065                      | 0.866                 | 0.65                     |
| School                | AC_Compressor  | 1           | 2                 | 0.059                      | 0.953                 | 0.35                     |
| School                | AC_Compressor  | 2           | 1                 | 1.339                      | 0.693                 | 0.65                     |
| School                | AC_Compressor  | 2           | 2                 | 1.205                      | 0.762                 | 0.35                     |
| School                | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| School                | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| College               | Space_Heat     | 1           | 1                 | 0.26643                    | 3.14441               | 0.65                     |
| College               | Space_Heat     | 1           | 2                 | 0.23979                    | 3.45885               | 0.3                      |
| College               | Space_Heat     | 1           | 3                 | 0.21821                    | 3.77329               | 0.04                     |
| College               | Space_Heat     | 1           | 4                 | 0.19663                    | 4.08773               | 0.01                     |
| College               | Space_Heat     | 2           | 1                 | 5.46443                    | 2.51553               | 1                        |
| College               | Space_Heat     | 2           | 2                 | 4.91799                    | 2.76708               | 0                        |
| College               | Space_Heat     | 2           | 3                 | 4.47537                    | 3.01863               | 0                        |
| College               | Space_Heat     | 2           | 4                 | 4.03275                    | 3.27018               | 0                        |
| College               | Water_Heat     | 1           | 1                 | 0.28715                    | 3.38894               | 0.4                      |
| College               | Water_Heat     | 1           | 2                 | 0.25844                    | 3.72784               | 0.5                      |
| College               | Water_Heat     | 1           | 3                 | 0.22613                    | 4.06673               | 0.08                     |
| College               | Water_Heat     | 1           | 4                 | 0.19383                    | 4.40563               | 0.02                     |
| College               | Water_Heat     | 2           | 1                 | 5.88939                    | 2.71116               | 0.4                      |
| College               | Water_Heat     | 2           | 2                 | 5.30045                    | 2.98227               | 0.5                      |
| College               | Water_Heat     | 2           | 3                 | 4.6379                     | 3.25339               | 0.08                     |
| College               | Water_Heat     | 2           | 4                 | 3.97534                    | 3.5245                | 0.02                     |
| College               | Cook_top       | 1           | 1                 | 0.0486                     | 0.57358               | 0.65                     |
| College               | Cook_top       | 1           | 2                 | 0.04374                    | 0.63093               | 0.35                     |
| College               | Cook_top       | 2           | 1                 | 0.99678                    | 0.45886               | 0.65                     |
| College               | Cook_top       | 2           | 2                 | 0.8971                     | 0.50475               | 0.35                     |
| College               | Fryer          | 1           | 1                 | 0.04857                    | 0.57322               | 0.65                     |
| College               | Fryer          | 1           | 2                 | 0.04371                    | 0.63055               | 0.35                     |
| College               | Fryer          | 2           | 1                 | 0.99616                    | 0.45858               | 0.65                     |
| College               | Fryer          | 2           | 2                 | 0.89655                    | 0.50444               | 0.35                     |
| College               | Griddle        | 1           | 1                 | 0.04857                    | 0.57322               | 0.65                     |
| College               | Griddle        | 1           | 2                 | 0.04371                    | 0.63055               | 0.35                     |
| College               | Griddle        | 2           | 1                 | 0.99616                    | 0.45858               | 0.65                     |
| College               | Griddle        | 2           | 2                 | 0.89655                    | 0.50444               | 0.35                     |
| College               | Other_Cooking  | 1           | 1                 | 0.0486                     | 0.57358               | 0.65                     |
| College               | Other_Cooking  | 1           | 2                 | 0.04374                    | 0.63093               | 0.35                     |
| College               | Other_Cooking  | 2           | 1                 | 0.99678                    | 0.45886               | 0.65                     |
| College               | Other_Cooking  | 2           | 2                 | 0.8971                     | 0.50475               | 0.35                     |
| College               | AC_Compressor  | 1           | 1                 | 0.11819                    | 1.3949                | 0.65                     |
| College               | AC_Compressor  | 1           | 2                 | 0.10637                    | 1.53439               | 0.35                     |
| College               | AC_Compressor  | 2           | 1                 | 2.4241                     | 1.11592               | 0.65                     |



| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| College               | AC_Compressor  | 2           | 2                 | 2.18169                    | 1.22752               | 0.35                     |
| College               | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| College               | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Health                | Space_Heat     | 1           | 1                 | 0.06894                    | 0.8825                | 0.65                     |
| Health                | Space_Heat     | 1           | 2                 | 0.06205                    | 0.97075               | 0.3                      |
| Health                | Space_Heat     | 1           | 3                 | 0.05646                    | 1.059                 | 0.04                     |
| Health                | Space_Heat     | 1           | 4                 | 0.05088                    | 1.14725               | 0.01                     |
| Health                | Space_Heat     | 2           | 1                 | 1.41395                    | 0.706                 | 1                        |
| Health                | Space_Heat     | 2           | 2                 | 1.27255                    | 0.7766                | 0                        |
| Health                | Space_Heat     | 2           | 3                 | 1.15802                    | 0.8472                | 0                        |
| Health                | Space_Heat     | 2           | 4                 | 1.04349                    | 0.9178                | 0                        |
| Health                | Water_Heat     | 1           | 1                 | 0.41709                    | 5.33917               | 0.4                      |
| Health                | Water_Heat     | 1           | 2                 | 0.37538                    | 5.87309               | 0.5                      |
| Health                | Water_Heat     | 1           | 3                 | 0.32846                    | 6.407                 | 0.08                     |
| Health                | Water_Heat     | 1           | 4                 | 0.28154                    | 6.94092               | 0.02                     |
| Health                | Water_Heat     | 2           | 1                 | 8.55444                    | 4.27134               | 0.4                      |
| Health                | Water_Heat     | 2           | 2                 | 7.699                      | 4.69847               | 0.5                      |
| Health                | Water_Heat     | 2           | 3                 | 6.73662                    | 5.1256                | 0.08                     |
| Health                | Water_Heat     | 2           | 4                 | 5.77425                    | 5.55274               | 0.02                     |
| Health                | Cook_top       | 1           | 1                 | 0.26358                    | 3.37409               | 0.65                     |
| Health                | Cook_top       | 1           | 2                 | 0.23722                    | 3.7115                | 0.35                     |
| Health                | Cook_top       | 2           | 1                 | 5.40598                    | 2.69927               | 0.65                     |
| Health                | Cook_top       | 2           | 2                 | 4.86538                    | 2.9692                | 0.35                     |
| Health                | Fryer          | 1           | 1                 | 0.26358                    | 3.37409               | 0.65                     |
| Health                | Fryer          | 1           | 2                 | 0.23722                    | 3.7115                | 0.35                     |
| Health                | Fryer          | 2           | 1                 | 5.40598                    | 2.69927               | 0.65                     |
| Health                | Fryer          | 2           | 2                 | 4.86538                    | 2.9692                | 0.35                     |
| Health                | Griddle        | 1           | 1                 | 0.26358                    | 3.37409               | 0.65                     |
| Health                | Griddle        | 1           | 2                 | 0.23722                    | 3.7115                | 0.35                     |
| Health                | Griddle        | 2           | 1                 | 5.40598                    | 2.69927               | 0.65                     |
| Health                | Griddle        | 2           | 2                 | 4.86538                    | 2.9692                | 0.35                     |
| Health                | Other_Cooking  | 1           | 1                 | 0.02636                    | 0.33743               | 0.65                     |
| Health                | Other_Cooking  | 1           | 2                 | 0.02372                    | 0.37118               | 0.35                     |
| Health                | Other_Cooking  | 2           | 1                 | 0.54064                    | 0.26995               | 0.65                     |
| Health                | Other_Cooking  | 2           | 2                 | 0.48657                    | 0.29694               | 0.35                     |
| Health                | Drying         | 1           | 1                 | 0.14598                    | 1.86871               | 0.65                     |
| Health                | Drying         | 1           | 2                 | 0.13138                    | 2.05558               | 0.35                     |
| Health                | Drying         | 2           | 1                 | 2.99405                    | 1.49497               | 0.65                     |
| Health                | Drying         | 2           | 2                 | 2.69465                    | 1.64446               | 0.35                     |
| Health                | AC_Compressor  | 1           | 1                 | 0.11386                    | 1.45749               | 0.65                     |
| Health                | AC_Compressor  | 1           | 2                 | 0.10247                    | 1.60324               | 0.35                     |
| Health                | AC_Compressor  | 2           | 1                 | 2.3352                     | 1.16599               | 0.65                     |
| Health                | AC_Compressor  | 2           | 2                 | 2.10168                    | 1.28259               | 0.35                     |
| Health                | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Health                | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Lodging               | Space_Heat     | 1           | 1                 | 0.38698                    | 4.85892               | 0.65                     |
| Lodging               | Space_Heat     | 1           | 2                 | 0.3483                     | 5.3448                | 0.3                      |
| Lodging               | Space_Heat     | 1           | 3                 | 0.3169                     | 5.8307                | 0.04                     |
| Lodging               | Space_Heat     | 1           | 4                 | 0.2856                     | 6.3166                | 0.01                     |
| Lodging               | Space_Heat     | 2           | 1                 | 7.9369                     | 3.8871                | 1                        |
| Lodging               | Space_Heat     | 2           | 2                 | 7.1432                     | 4.2759                |                          |
| Lodging               | Space_Heat     | 2           | 3                 | 6.5003                     | 4.6646                |                          |
| Lodging               | Space_Heat     | 2           | 4                 | 5.8574                     | 5.0533                |                          |
| Lodging               | Water_Heat     | 1           | 1                 | 0.6901                     | 8.6651                | 0.4                      |
| Lodging               | Water_Heat     | 1           | 2                 | 0.6211                     | 9.5317                | 0.5                      |
| Lodging               | Water_Heat     | 1           | 3                 | 0.5435                     | 10.3982               | 0.08                     |
| Lodging               | Water_Heat     | 1           | 4                 | 0.4658                     | 11.2647               | 0.02                     |
| Lodging               | Water_Heat     | 2           | 1                 | 14.1542                    | 6.9321                | 0.4                      |
| Lodging               | Water_Heat     | 2           | 2                 | 12.7388                    | 7.6253                | 0.5                      |
| Lodging               | Water_Heat     | 2           | 3                 | 11.1465                    | 8.3185                | 0.08                     |
| Lodging               | Water_Heat     | 2           | 4                 | 9.5541                     | 9.0118                | 0.02                     |
| Lodging               | Cook_top       | 1           | 1                 | 0.321                      | 4.0305                | 0.65                     |
| Lodging               | Cook_top       | 1           | 2                 | 0.2889                     | 4.4335                | 0.35                     |
| Lodging               | Cook_top       | 2           | 1                 | 6.5837                     | 3.2244                | 0.65                     |
| Lodging               | Cook_top       | 2           | 2                 | 5.9253                     | 3.5468                | 0.35                     |
| Lodging               | Fryer          | 1           | 1                 | 0.4183                     | 5.2524                | 0.65                     |
| Lodging               | Fryer          | 1           | 2                 | 0.3765                     | 5.7777                | 0.35                     |
| Lodging               | Fryer          | 2           | 1                 | 8.5797                     | 4.2019                | 0.65                     |
| Lodging               | Fryer          | 2           | 2                 | 7.7217                     | 4.6221                | 0.35                     |
| Lodging               | Griddle        | 1           | 1                 | 0.4183                     | 5.2524                | 0.65                     |
| Lodging               | Griddle        | 1           | 2                 | 0.3765                     | 5.7777                | 0.35                     |

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| Lodging               | Griddle        | 2           | 1                 | 8.5797                     | 4.2019                | 0.65                     |
| Lodging               | Griddle        | 2           | 2                 | 7.7217                     | 4.6221                | 0.35                     |
| Lodging               | Other_Cooking  | 1           | 1                 | 0.041                      | 0.5148                | 0.65                     |
| Lodging               | Other_Cooking  | 1           | 2                 | 0.0369                     | 0.5663                | 0.35                     |
| Lodging               | Other_Cooking  | 2           | 1                 | 0.8409                     | 0.4118                | 0.65                     |
| Lodging               | Other_Cooking  | 2           | 2                 | 0.7568                     | 0.453                 | 0.35                     |
| Lodging               | Drying         | 1           | 1                 | 0.1725                     | 2.1663                | 0.65                     |
| Lodging               | Drying         | 1           | 2                 | 0.1553                     | 2.3829                | 0.35                     |
| Lodging               | Drying         | 2           | 1                 | 3.5386                     | 1.733                 | 0.65                     |
| Lodging               | Drying         | 2           | 2                 | 3.1847                     | 1.9063                | 0.35                     |
| Lodging               | AC_Compressor  | 1           | 1                 | 0.057                      | 0.7157                | 0.65                     |
| Lodging               | AC_Compressor  | 1           | 2                 | 0.0513                     | 0.7872                | 0.35                     |
| Lodging               | AC_Compressor  | 2           | 1                 | 1.169                      | 0.5725                | 0.65                     |
| Lodging               | AC_Compressor  | 2           | 2                 | 1.0521                     | 0.6298                | 0.35                     |
| Lodging               | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Lodging               | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Misc                  | Space_Heat     | 1           | 1                 | 0.1469                     | 2.1455                | 0.65                     |
| Misc                  | Space_Heat     | 1           | 2                 | 0.1322                     | 2.36                  | 0.3                      |
| Misc                  | Space_Heat     | 1           | 3                 | 0.1203                     | 2.5746                | 0.04                     |
| Misc                  | Space_Heat     | 1           | 4                 | 0.1084                     | 2.7891                | 0.01                     |
| Misc                  | Space_Heat     | 2           | 1                 | 3.0121                     | 1.7164                | 1                        |
| Misc                  | Space_Heat     | 2           | 2                 | 2.7109                     | 1.888                 | 0                        |
| Misc                  | Space_Heat     | 2           | 3                 | 2.4669                     | 2.0597                | 0                        |
| Misc                  | Space_Heat     | 2           | 4                 | 2.2229                     | 2.2313                | 0                        |
| Misc                  | Water_Heat     | 1           | 1                 | 0.2013                     | 2.9412                | 0.4                      |
| Misc                  | Water_Heat     | 1           | 2                 | 0.1812                     | 3.2354                | 0.5                      |
| Misc                  | Water_Heat     | 1           | 3                 | 0.1585                     | 3.5295                | 0.08                     |
| Misc                  | Water_Heat     | 1           | 4                 | 0.1359                     | 3.8236                | 0.02                     |
| Misc                  | Water_Heat     | 2           | 1                 | 4.1292                     | 2.353                 | 0.4                      |
| Misc                  | Water_Heat     | 2           | 2                 | 3.7163                     | 2.5883                | 0.5                      |
| Misc                  | Water_Heat     | 2           | 3                 | 3.2518                     | 2.8236                | 0.08                     |
| Misc                  | Water_Heat     | 2           | 4                 | 2.7872                     | 3.0589                | 0.02                     |
| Misc                  | Cook_top       | 1           | 1                 | 0.043                      | 0.6282                | 0.65                     |
| Misc                  | Cook_top       | 1           | 2                 | 0.0387                     | 0.691                 | 0.35                     |
| Misc                  | Cook_top       | 2           | 1                 | 0.8819                     | 0.5025                | 0.65                     |
| Misc                  | Cook_top       | 2           | 2                 | 0.7937                     | 0.5528                | 0.35                     |
| Misc                  | Fryer          | 1           | 1                 | 0.043                      | 0.6285                | 0.65                     |
| Misc                  | Fryer          | 1           | 2                 | 0.0387                     | 0.6913                | 0.35                     |
| Misc                  | Fryer          | 2           | 1                 | 0.8823                     | 0.5028                | 0.65                     |
| Misc                  | Fryer          | 2           | 2                 | 0.7941                     | 0.5531                | 0.35                     |
| Misc                  | Griddle        | 1           | 1                 | 0.043                      | 0.6285                | 0.65                     |
| Misc                  | Griddle        | 1           | 2                 | 0.0387                     | 0.6913                | 0.35                     |
| Misc                  | Griddle        | 2           | 1                 | 0.8823                     | 0.5028                | 0.65                     |
| Misc                  | Griddle        | 2           | 2                 | 0.7941                     | 0.5531                | 0.35                     |
| Misc                  | Other_Cooking  | 1           | 1                 | 0.043                      | 0.6282                | 0.65                     |
| Misc                  | Other_Cooking  | 1           | 2                 | 0.0387                     | 0.691                 | 0.35                     |
| Misc                  | Other_Cooking  | 2           | 1                 | 0.8819                     | 0.5025                | 0.65                     |
| Misc                  | Other_Cooking  | 2           | 2                 | 0.7937                     | 0.5528                | 0.35                     |
| Misc                  | AC_Compressor  | 1           | 1                 | 0.1322                     | 1.9306                | 0.65                     |
| Misc                  | AC_Compressor  | 1           | 2                 | 0.1189                     | 2.1237                | 0.35                     |
| Misc                  | AC_Compressor  | 2           | 1                 | 2.7104                     | 1.5445                | 0.65                     |
| Misc                  | AC_Compressor  | 2           | 2                 | 2.4394                     | 1.6989                | 0.35                     |
| Misc                  | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Misc                  | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Government            | Space_Heat     | 1           | 1                 | 0.3046                     | 3.815                 | 0.65                     |
| Government            | Space_Heat     | 1           | 2                 | 0.2742                     | 4.1965                | 0.3                      |
| Government            | Space_Heat     | 1           | 3                 | 0.2495                     | 4.578                 | 0.04                     |
| Government            | Space_Heat     | 1           | 4                 | 0.2248                     | 4.9595                | 0.01                     |
| Government            | Space_Heat     | 2           | 1                 | 6.2481                     | 3.052                 | 1                        |
| Government            | Space_Heat     | 2           | 2                 | 5.6233                     | 3.3572                | 0                        |
| Government            | Space_Heat     | 2           | 3                 | 5.1172                     | 3.6624                | 0                        |
| Government            | Space_Heat     | 2           | 4                 | 4.6111                     | 3.9676                | 0                        |
| Government            | Water_Heat     | 1           | 1                 | 0.0474                     | 0.5935                | 0.4                      |
| Government            | Water_Heat     | 1           | 2                 | 0.0427                     | 0.6528                | 0.5                      |
| Government            | Water_Heat     | 1           | 3                 | 0.0373                     | 0.7122                | 0.08                     |
| Government            | Water_Heat     | 1           | 4                 | 0.032                      | 0.7715                | 0.02                     |
| Government            | Water_Heat     | 2           | 1                 | 0.972                      | 0.4748                | 0.4                      |
| Government            | Water_Heat     | 2           | 2                 | 0.8748                     | 0.5222                | 0.5                      |
| Government            | Water_Heat     | 2           | 3                 | 0.7654                     | 0.5697                | 0.08                     |
| Government            | Water_Heat     | 2           | 4                 | 0.6561                     | 0.6172                | 0.02                     |
| Government            | Cook_top       | 1           | 1                 | 0.0346                     | 0.4333                | 0.65                     |

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| Government            | Cook_top       | 1           | 2                 | 0.0311                     | 0.4766                | 0.35                     |
| Government            | Cook_top       | 2           | 1                 | 0.7096                     | 0.3466                | 0.65                     |
| Government            | Cook_top       | 2           | 2                 | 0.6387                     | 0.3813                | 0.35                     |
| Government            | Fryer          | 1           | 1                 | 0.0346                     | 0.4332                | 0.65                     |
| Government            | Fryer          | 1           | 2                 | 0.0311                     | 0.4765                | 0.35                     |
| Government            | Fryer          | 2           | 1                 | 0.7094                     | 0.3465                | 0.65                     |
| Government            | Fryer          | 2           | 2                 | 0.6385                     | 0.3812                | 0.35                     |
| Government            | Griddle        | 1           | 1                 | 0.0346                     | 0.4332                | 0.65                     |
| Government            | Griddle        | 1           | 2                 | 0.0311                     | 0.4765                | 0.35                     |
| Government            | Griddle        | 2           | 1                 | 0.7094                     | 0.3465                | 0.65                     |
| Government            | Griddle        | 2           | 2                 | 0.6385                     | 0.3812                | 0.35                     |
| Government            | Other_Cooking  | 1           | 1                 | 0.0346                     | 0.4333                | 0.65                     |
| Government            | Other_Cooking  | 1           | 2                 | 0.0311                     | 0.4766                | 0.35                     |
| Government            | Other_Cooking  | 2           | 1                 | 0.7096                     | 0.3466                | 0.65                     |
| Government            | Other_Cooking  | 2           | 2                 | 0.6387                     | 0.3813                | 0.35                     |
| Government            | AC_Compressor  | 1           | 1                 | 0.1043                     | 1.3062                | 0.65                     |
| Government            | AC_Compressor  | 1           | 2                 | 0.0939                     | 1.4368                | 0.35                     |
| Government            | AC_Compressor  | 2           | 1                 | 2.1392                     | 1.0449                | 0.65                     |
| Government            | AC_Compressor  | 2           | 2                 | 1.9253                     | 1.1494                | 0.35                     |
| Government            | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Government            | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| TCU                   | Space_Heat     | 1           | 1                 | 0.1469                     | 1.8457                | 0.65                     |
| TCU                   | Space_Heat     | 1           | 2                 | 0.1322                     | 2.0303                | 0.3                      |
| TCU                   | Space_Heat     | 1           | 3                 | 0.1203                     | 2.2149                | 0.04                     |
| TCU                   | Space_Heat     | 1           | 4                 | 0.1084                     | 2.3995                | 0.01                     |
| TCU                   | Space_Heat     | 2           | 1                 | 3.0121                     | 1.4766                | 1                        |
| TCU                   | Space_Heat     | 2           | 2                 | 2.7109                     | 1.6242                | 0                        |
| TCU                   | Space_Heat     | 2           | 3                 | 2.4669                     | 1.7719                | 0                        |
| TCU                   | Space_Heat     | 2           | 4                 | 2.2229                     | 1.9196                | 0                        |
| TCU                   | Water_Heat     | 1           | 1                 | 0.2013                     | 2.5303                | 0.4                      |
| TCU                   | Water_Heat     | 1           | 2                 | 0.1812                     | 2.7833                | 0.5                      |
| TCU                   | Water_Heat     | 1           | 3                 | 0.1585                     | 3.0364                | 0.08                     |
| TCU                   | Water_Heat     | 1           | 4                 | 0.1359                     | 3.2894                | 0.02                     |
| TCU                   | Water_Heat     | 2           | 1                 | 4.1292                     | 2.0243                | 0.4                      |
| TCU                   | Water_Heat     | 2           | 2                 | 3.7163                     | 2.2267                | 0.5                      |
| TCU                   | Water_Heat     | 2           | 3                 | 3.2518                     | 2.4291                | 0.08                     |
| TCU                   | Water_Heat     | 2           | 4                 | 2.7872                     | 2.6315                | 0.02                     |
| TCU                   | Engine         | 1           | 1                 | 2.4409                     | 30.6768               | 0.65                     |
| TCU                   | Engine         | 1           | 2                 | 2.1968                     | 33.7445               | 0.35                     |
| TCU                   | Engine         | 2           | 1                 | 50.0617                    | 24.5415               | 0.65                     |
| TCU                   | Engine         | 2           | 2                 | 45.0556                    | 26.9956               | 0.35                     |
| TCU                   | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| TCU                   | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Construction          | Space_Heat     | 1           | 1                 | 0.1469                     | 2.2951                | 0.65                     |
| Construction          | Space_Heat     | 1           | 2                 | 0.1322                     | 2.5246                | 0.3                      |
| Construction          | Space_Heat     | 1           | 3                 | 0.1203                     | 2.7542                | 0.04                     |
| Construction          | Space_Heat     | 1           | 4                 | 0.1084                     | 2.9837                | 0.01                     |
| Construction          | Space_Heat     | 2           | 1                 | 3.0121                     | 1.8361                | 1                        |
| Construction          | Space_Heat     | 2           | 2                 | 2.7109                     | 2.0197                | 0                        |
| Construction          | Space_Heat     | 2           | 3                 | 2.4669                     | 2.2033                | 0                        |
| Construction          | Space_Heat     | 2           | 4                 | 2.2229                     | 2.3869                | 0                        |
| Construction          | Water_Heat     | 1           | 1                 | 0.2013                     | 3.1464                | 0.4                      |
| Construction          | Water_Heat     | 1           | 2                 | 0.1812                     | 3.461                 | 0.5                      |
| Construction          | Water_Heat     | 1           | 3                 | 0.1585                     | 3.7757                | 0.08                     |
| Construction          | Water_Heat     | 1           | 4                 | 0.1359                     | 4.0903                | 0.02                     |
| Construction          | Water_Heat     | 2           | 1                 | 4.1292                     | 2.5171                | 0.4                      |
| Construction          | Water_Heat     | 2           | 2                 | 3.7163                     | 2.7688                | 0.5                      |
| Construction          | Water_Heat     | 2           | 3                 | 3.2518                     | 3.0205                | 0.08                     |
| Construction          | Water_Heat     | 2           | 4                 | 2.7872                     | 3.2722                | 0.02                     |
| Construction          | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Construction          | Other          | 2           | 1                 | 0                          | 0                     | 0                        |
| Agriculture           | Space_Heat     | 1           | 1                 | 0.1469                     | 1.6583                | 0.65                     |
| Agriculture           | Space_Heat     | 1           | 2                 | 0.1322                     | 1.8242                | 0.3                      |
| Agriculture           | Space_Heat     | 1           | 3                 | 0.1203                     | 1.99                  | 0.04                     |
| Agriculture           | Space_Heat     | 1           | 4                 | 0.1084                     | 2.1558                | 0.01                     |
| Agriculture           | Space_Heat     | 2           | 1                 | 3.0121                     | 1.3267                | 1                        |
| Agriculture           | Space_Heat     | 2           | 2                 | 2.7109                     | 1.4593                | 0                        |
| Agriculture           | Space_Heat     | 2           | 3                 | 2.4669                     | 1.592                 | 0                        |
| Agriculture           | Space_Heat     | 2           | 4                 | 2.2229                     | 1.7247                | 0                        |
| Agriculture           | Water_Heat     | 1           | 1                 | 0.2013                     | 2.2734                | 0.4                      |
| Agriculture           | Water_Heat     | 1           | 2                 | 0.1812                     | 2.5008                | 0.5                      |

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Efficiency</u> | <u>uec</u><br>(therm/SqFt) | <u>Equipment Cost</u> | <u>efficiency shares</u> |
|-----------------------|----------------|-------------|-------------------|----------------------------|-----------------------|--------------------------|
| Agriculture           | Water_Heat     | 1           | 3                 | 0.1585                     | 2.7281                | 0.08                     |
| Agriculture           | Water_Heat     | 1           | 4                 | 0.1359                     | 2.9554                | 0.02                     |
| Agriculture           | Water_Heat     | 2           | 1                 | 4.1292                     | 1.8187                | 0.4                      |
| Agriculture           | Water_Heat     | 2           | 2                 | 3.7163                     | 2.0006                | 0.5                      |
| Agriculture           | Water_Heat     | 2           | 3                 | 3.2518                     | 2.1825                | 0.08                     |
| Agriculture           | Water_Heat     | 2           | 4                 | 2.7872                     | 2.3644                | 0.02                     |
| Agriculture           | Drying         | 1           | 1                 | 0.2013                     | 2.2734                | 0.65                     |
| Agriculture           | Drying         | 1           | 2                 | 0.1812                     | 2.5008                | 0.35                     |
| Agriculture           | Drying         | 2           | 1                 | 4.1292                     | 1.8187                | 0.65                     |
| Agriculture           | Drying         | 2           | 2                 | 3.7163                     | 2.0006                | 0.35                     |
| Agriculture           | Engine         | 1           | 1                 | 0.8657                     | 9.7757                | 0.65                     |
| Agriculture           | Engine         | 1           | 2                 | 0.7791                     | 10.7533               | 0.35                     |
| Agriculture           | Engine         | 2           | 1                 | 17.7557                    | 7.8206                | 0.65                     |
| Agriculture           | Engine         | 2           | 2                 | 15.9802                    | 8.6026                | 0.35                     |
| Agriculture           | Other          | 1           | 1                 | 0                          | 0                     | 1                        |
| Agriculture           | Other          | 2           | 1                 | 0                          | 0                     | 0                        |

**San Diego Gas and Electric Company  
Triennial Cost Allocation Proceeding  
Fuel Market Share**

| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Share</u> |
|-----------------------|----------------|-------------|--------------|
| Office                | Space_Heat     | 1           | 0.8555       |
| Office                | Space_Heat     | 2           | 0.1445       |
| Office                | Water_Heat     | 1           | 0.16581      |
| Office                | Water_Heat     | 2           | 0.83419      |
| Office                | Cooking        | 1           | 0.02069      |
| Office                | Cooking        | 2           | 0.97931      |
| Office                | AC_Compressor  | 1           | 0.06         |
| Office                | AC_Compressor  | 2           | 0.94         |
| Office                | Other          | 1           | 1            |
| Restaurant            | Space_Heat     | 1           | 0.59046      |
| Restaurant            | Space_Heat     | 2           | 0.40954      |
| Restaurant            | Water_Heat     | 1           | 0.90204      |
| Restaurant            | Water_Heat     | 2           | 0.09796      |
| Restaurant            | Cook_top       | 1           | 0.97733      |
| Restaurant            | Cook_top       | 2           | 0.02267      |
| Restaurant            | Fryer          | 1           | 0.90535      |
| Restaurant            | Fryer          | 2           | 0.09465      |
| Restaurant            | Griddle        | 1           | 0.97038      |
| Restaurant            | Griddle        | 2           | 0.02962      |
| Restaurant            | Other_Cooking  | 1           | 0.66         |
| Restaurant            | Other_Cooking  | 2           | 0.34         |
| Restaurant            | AC_Compressor  | 1           | 0.06         |
| Restaurant            | AC_Compressor  | 2           | 0.94         |
| Restaurant            | Other          | 1           | 1            |
| Retail                | Space_Heat     | 1           | 0.51751      |
| Retail                | Space_Heat     | 2           | 0.48249      |
| Retail                | Water_Heat     | 1           | 0.31008      |
| Retail                | Water_Heat     | 2           | 0.68992      |
| Retail                | Cooking        | 1           | 0.09367      |
| Retail                | Cooking        | 2           | 0.90633      |
| Retail                | Other          | 1           | 1            |
| Laundry               | Space_Heat     | 1           | 0.57692      |
| Laundry               | Space_Heat     | 2           | 0.42308      |
| Laundry               | Water_Heat     | 1           | 0.67647      |
| Laundry               | Water_Heat     | 2           | 0.32353      |
| Laundry               | Drying         | 1           | 0.6          |
| Laundry               | Drying         | 2           | 0.4          |
| Laundry               | Other          | 1           | 1            |
| Warehouse             | Space_Heat     | 1           | 0.43723      |
| Warehouse             | Space_Heat     | 2           | 0.56277      |
| Warehouse             | Water_Heat     | 1           | 0.07159      |
| Warehouse             | Water_Heat     | 2           | 0.92841      |
| Warehouse             | Engine         | 1           | 0.06         |
| Warehouse             | Engine         | 2           | 0.94         |
| Warehouse             | Other          | 1           | 1            |
| School                | Space_Heat     | 1           | 0.75284      |
| School                | Space_Heat     | 2           | 0.24716      |
| School                | Water_Heat     | 1           | 0.75843      |
| School                | Water_Heat     | 2           | 0.24157      |
| School                | Cook_top       | 1           | 0.42857      |
| School                | Cook_top       | 2           | 0.57143      |
| School                | Fryer          | 1           | 0.42857      |
| School                | Fryer          | 2           | 0.57143      |
| School                | Griddle        | 1           | 0.42857      |
| School                | Griddle        | 2           | 0.57143      |
| School                | Other_Cooking  | 1           | 0.42857      |
| School                | Other_Cooking  | 2           | 0.57143      |
| School                | AC_Compressor  | 1           | 0.06         |
| School                | AC_Compressor  | 2           | 0.94         |
| School                | Other          | 1           | 1            |
| College               | Space_Heat     | 1           | 0.33028      |
| College               | Space_Heat     | 2           | 0.66972      |
| College               | Water_Heat     | 1           | 0.81675      |

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| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Share</u> |
|-----------------------|----------------|-------------|--------------|
| College               | Water_Heat     | 2           | 0.18325      |
| College               | Cook_top       | 1           | 0.04801      |
| College               | Cook_top       | 2           | 0.95199      |
| College               | Fryer          | 1           | 0.04801      |
| College               | Fryer          | 2           | 0.95199      |
| College               | Griddle        | 1           | 0.04801      |
| College               | Griddle        | 2           | 0.95199      |
| College               | Other_Cooking  | 1           | 0.04801      |
| College               | Other_Cooking  | 2           | 0.95199      |
| College               | AC_Compressor  | 1           | 0.06         |
| College               | AC_Compressor  | 2           | 0.94         |
| College               | Other          | 1           | 1            |
| Health                | Space_Heat     | 1           | 0.66026      |
| Health                | Space_Heat     | 2           | 0.33974      |
| Health                | Water_Heat     | 1           | 0.8242       |
| Health                | Water_Heat     | 2           | 0.1758       |
| Health                | Cook_top       | 1           | 0.09487      |
| Health                | Cook_top       | 2           | 0.90513      |
| Health                | Fryer          | 1           | 0.09487      |
| Health                | Fryer          | 2           | 0.90513      |
| Health                | Griddle        | 1           | 0.09487      |
| Health                | Griddle        | 2           | 0.90513      |
| Health                | Other_Cooking  | 1           | 0.66         |
| Health                | Other_Cooking  | 2           | 0.34         |
| Health                | Drying         | 1           | 0.6          |
| Health                | Drying         | 2           | 0.4          |
| Health                | AC_Compressor  | 1           | 0.06         |
| Health                | AC_Compressor  | 2           | 0.94         |
| Health                | Other          | 1           | 1            |
| Lodging               | Space_Heat     | 1           | 0.27151      |
| Lodging               | Space_Heat     | 2           | 0.72849      |
| Lodging               | Water_Heat     | 1           | 0.98948      |
| Lodging               | Water_Heat     | 2           | 0.01052      |
| Lodging               | Cook_top       | 1           | 0.44958      |
| Lodging               | Cook_top       | 2           | 0.55042      |
| Lodging               | Fryer          | 1           | 0.44958      |
| Lodging               | Fryer          | 2           | 0.55042      |
| Lodging               | Griddle        | 1           | 0.44958      |
| Lodging               | Griddle        | 2           | 0.55042      |
| Lodging               | Other_Cooking  | 1           | 0.44958      |
| Lodging               | Other_Cooking  | 2           | 0.55042      |
| Lodging               | Drying         | 1           | 0.6          |
| Lodging               | Drying         | 2           | 0.4          |
| Lodging               | AC_Compressor  | 1           | 0.06         |
| Lodging               | AC_Compressor  | 2           | 0.94         |
| Lodging               | Other          | 1           | 1            |
| Misc                  | Space_Heat     | 1           | 0.54964      |
| Misc                  | Space_Heat     | 2           | 0.45036      |
| Misc                  | Water_Heat     | 1           | 0.55691      |
| Misc                  | Water_Heat     | 2           | 0.44309      |
| Misc                  | Cook_top       | 1           | 0.97733      |
| Misc                  | Cook_top       | 2           | 0.02267      |
| Misc                  | Fryer          | 1           | 0.90535      |
| Misc                  | Fryer          | 2           | 0.09465      |
| Misc                  | Griddle        | 1           | 0.97038      |
| Misc                  | Griddle        | 2           | 0.02962      |
| Misc                  | Other_Cooking  | 1           | 0.66         |
| Misc                  | Other_Cooking  | 2           | 0.34         |
| Misc                  | AC_Compressor  | 1           | 0.06         |
| Misc                  | AC_Compressor  | 2           | 0.94         |
| Misc                  | Other          | 1           | 1            |
| Government            | Space_Heat     | 1           | 0.8555       |
| Government            | Space_Heat     | 2           | 0.1445       |
| Government            | Water_Heat     | 1           | 0.16581      |
| Government            | Water_Heat     | 2           | 0.83419      |
| Government            | Cook_top       | 1           | 0.97733      |
| Government            | Cook_top       | 2           | 0.02267      |
| Government            | Fryer          | 1           | 0.90535      |
| Government            | Fryer          | 2           | 0.09465      |
| Government            | Griddle        | 1           | 0.97038      |

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| <u>Business Types</u> | <u>End Use</u> | <u>Fuel</u> | <u>Share</u> |
|-----------------------|----------------|-------------|--------------|
| Government            | Griddle        | 2           | 0.02962      |
| Government            | Other_Cooking  | 1           | 0.66         |
| Government            | Other_Cooking  | 2           | 0.34         |
| Government            | AC_Compressor  | 1           | 0.06         |
| Government            | AC_Compressor  | 2           | 0.94         |
| Government            | Other          | 1           | 1            |
| TCU                   | Space_Heat     | 1           | 0.57692      |
| TCU                   | Space_Heat     | 2           | 0.42308      |
| TCU                   | Water_Heat     | 1           | 0.67647      |
| TCU                   | Water_Heat     | 2           | 0.32353      |
| TCU                   | Engine         | 1           | 0.06         |
| TCU                   | Engine         | 2           | 0.94         |
| TCU                   | Other          | 1           | 1            |
| Construction          | Space_Heat     | 1           | 0.57692      |
| Construction          | Space_Heat     | 2           | 0.42308      |
| Construction          | Water_Heat     | 1           | 0.67647      |
| Construction          | Water_Heat     | 2           | 0.32353      |
| Construction          | Other          | 1           | 1            |
| Agriculture           | Space_Heat     | 1           | 0.57692      |
| Agriculture           | Space_Heat     | 2           | 0.42308      |
| Agriculture           | Water_Heat     | 1           | 0.67647      |
| Agriculture           | Water_Heat     | 2           | 0.32353      |
| Agriculture           | Drying         | 1           | 1            |
| Agriculture           | Drying         | 2           | 0            |
| Agriculture           | Engine         | 1           | 0.06         |
| Agriculture           | Engine         | 2           | 0.94         |
| Agriculture           | Other          | 1           | 1            |
| Grocery               | Space_Heat     | 1           | 0.74652      |
| Grocery               | Space_Heat     | 2           | 0.25348      |
| Grocery               | Water_Heat     | 1           | 0.70846      |
| Grocery               | Water_Heat     | 2           | 0.29154      |
| Grocery               | Cook_top       | 1           | 0.35627      |
| Grocery               | Cook_top       | 2           | 0.64373      |
| Grocery               | Fryer          | 1           | 0.35627      |
| Grocery               | Fryer          | 2           | 0.64373      |
| Grocery               | Griddle        | 1           | 0.35627      |
| Grocery               | Griddle        | 2           | 0.64373      |
| Grocery               | Other_Cooking  | 1           | 0.35627      |
| Grocery               | Other_Cooking  | 2           | 0.64373      |
| Grocery               | AC_Compressor  | 1           | 0.06         |
| Grocery               | AC_Compressor  | 2           | 0.94         |
| Grocery               | Other          | 1           | 1            |

**San Diego Gas and Electric Company  
 Triennial Cost Allocation Proceeding  
 Efficiency Shares**

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



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

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

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

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

**San Diego Gas and Electric Company  
 Triennial Cost Allocation Proceeding  
 Saturation Rate**

| <b>Business Type</b> | <b>End Use</b> | <b>saturation</b> |
|----------------------|----------------|-------------------|
| Office               | Space_Heat     | 0.872             |
| Office               | Water_Heat     | 0.7               |
| Office               | Cooking        | 0.082             |
| Office               | AC_Compressor  | 0.931             |
| Office               | Other          | 1                 |
| Restaurant           | Space_Heat     | 0.818             |
| Restaurant           | Water_Heat     | 0.96              |
| Restaurant           | Cook_top       | 0.75              |
| Restaurant           | Fryer          | 0.729             |
| Restaurant           | Griddle        | 0.574             |
| Restaurant           | Other_Cooking  | 0.9               |
| Restaurant           | AC_Compressor  | 0.871             |
| Restaurant           | Other          | 1                 |
| Retail               | Space_Heat     | 0.771             |
| Retail               | Water_Heat     | 0.62              |
| Retail               | Cooking        | 0.245             |
| Retail               | Other          | 1                 |
| Laundry              | Space_Heat     | 0.72              |
| Laundry              | Water_Heat     | 1                 |
| Laundry              | Drying         | 1                 |
| Laundry              | Other          | 1                 |
| Warehouse            | Space_Heat     | 0.231             |
| Warehouse            | Water_Heat     | 0.88              |
| Warehouse            | Engine         | 0.25              |
| Warehouse            | Other          | 1                 |
| School               | Space_Heat     | 0.967             |
| School               | Water_Heat     | 0.9               |
| School               | Cook_top       | 0.147             |
| School               | Fryer          | 0.147             |
| School               | Griddle        | 0.147             |
| School               | Other_Cooking  | 0.147             |
| School               | AC_Compressor  | 0.885             |
| School               | Other          | 1                 |
| College              | Space_Heat     | 0.763             |
| College              | Water_Heat     | 0.955             |
| College              | Cook_top       | 0.147             |
| College              | Fryer          | 0.147             |
| College              | Griddle        | 0.147             |
| College              | Other_Cooking  | 0.147             |
| College              | AC_Compressor  | 0.885             |
| College              | Other          | 1                 |
| Health               | Space_Heat     | 0.936             |
| Health               | Water_Heat     | 1                 |
| Health               | Cook_top       | 0.102             |
| Health               | Fryer          | 0.102             |
| Health               | Griddle        | 0.102             |
| Health               | Other_Cooking  | 0.102             |
| Health               | Drying         | 0.82              |
| Health               | AC_Compressor  | 0.792             |
| Health               | Other          | 1                 |
| Lodging              | Space_Heat     | 0.895             |
| Lodging              | Water_Heat     | 1                 |
| Lodging              | Cook_top       | 0.084             |
| Lodging              | Fryer          | 0.084             |
| Lodging              | Griddle        | 0.084             |
| Lodging              | Other_Cooking  | 0.084             |
| Lodging              | Drying         | 0.82              |
| Lodging              | AC_Compressor  | 0.795             |
| Lodging              | Other          | 1                 |
| Misc                 | Space_Heat     | 0.695             |
| Misc                 | Water_Heat     | 0.69              |
| Misc                 | Cook_top       | 0.021             |
| Misc                 | Fryer          | 0.021             |
| Misc                 | Griddle        | 0.021             |
| Misc                 | Other_Cooking  | 0.021             |
| Misc                 | AC_Compressor  | 0.731             |
| Misc                 | Other          | 1                 |
| Government           | Space_Heat     | 0.872             |

San Diego Gas and Electric  
Business Type Allocation Worksheet End Use saturation

|              |               |       |
|--------------|---------------|-------|
| Government   | Water_Heat    | 0.7   |
| Government   | Cook_top      | 0.196 |
| Government   | Fryer         | 0.196 |
| Government   | Griddle       | 0.196 |
| Government   | Other_Cooking | 0.196 |
| Government   | AC_Compressor | 0.888 |
| Government   | Other         | 1     |
| TCU          | Space_Heat    | 0.72  |
| TCU          | Water_Heat    | 0.69  |
| TCU          | Engine        | 0.5   |
| TCU          | Other         | 1     |
| Construction | Space_Heat    | 0.72  |
| Construction | Water_Heat    | 0.69  |
| Construction | Other         | 1     |
| Agriculture  | Space_Heat    | 0.72  |
| Agriculture  | Water_Heat    | 0.69  |
| Agriculture  | Drying        | 1     |
| Agriculture  | Engine        | 0.5   |
| Agriculture  | Other         | 1     |
| Grocery      | Space_Heat    | 0.647 |
| Grocery      | Water_Heat    | 0.93  |
| Grocery      | Cook_top      | 0.245 |
| Grocery      | Fryer         | 0.245 |
| Grocery      | Griddle       | 0.245 |
| Grocery      | Other_Cooking | 0.245 |
| Grocery      | AC_Compressor | 0.856 |
| Grocery      | Other         | 1     |

**Triennial Cost Allocation Proceeding  
 Equipment Cost Data**

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

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



San Diego Gas and Electric

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

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

San Diego Gas and Electric

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

San Diego Gas and Electric

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

**San Diego Gas and Electric  
 Employment Forecast (in Millions)**

| YEAR | Office     | Restaurant | Retail     | Laundry   | Warehouse  | School     | College   | Health     | Lodging    | Misc        | Government  | TCU        | Construction | Agriculture |
|------|------------|------------|------------|-----------|------------|------------|-----------|------------|------------|-------------|-------------|------------|--------------|-------------|
| 2010 | 0.27782585 | 0.10026595 | 0.13010582 | 0.0153565 | 0.04183044 | 0.09011036 | 0.0396509 | 0.1199569  | 0.03017787 | 0.056390022 | 0.125063633 | 0.05010368 | 0.055566208  | 0.00952238  |
| 2011 | 0.28899883 | 0.10190979 | 0.1296896  | 0.0154486 | 0.04188674 | 0.09204001 | 0.0405003 | 0.12253165 | 0.03067175 | 0.056728233 | 0.124026028 | 0.05067697 | 0.055415545  | 0.00956999  |
| 2012 | 0.29608915 | 0.10328073 | 0.13169119 | 0.0154548 | 0.04254507 | 0.09400708 | 0.0413637 | 0.1251378  | 0.03108442 | 0.056751365 | 0.122882623 | 0.05325563 | 0.056954786  | 0.00961784  |
| 2013 | 0.3056895  | 0.10438416 | 0.13309905 | 0.0155332 | 0.04341511 | 0.09536172 | 0.0419599 | 0.12694414 | 0.03141667 | 0.057040188 | 0.123297447 | 0.05459136 | 0.062447132  | 0.00966593  |
| 2014 | 0.31979117 | 0.10520813 | 0.13413139 | 0.0155533 | 0.04431001 | 0.09676582 | 0.0425766 | 0.12880689 | 0.03166545 | 0.05711437  | 0.124155919 | 0.05544577 | 0.067292391  | 0.00971426  |
| 2015 | 0.33099319 | 0.10560696 | 0.13463731 | 0.0155825 | 0.04526918 | 0.09828336 | 0.0432463 | 0.13083705 | 0.03178565 | 0.057221491 | 0.124660985 | 0.05704163 | 0.072539273  | 0.00976283  |
| 2016 | 0.34009152 | 0.10594356 | 0.13478084 | 0.0157    | 0.04630753 | 0.10050151 | 0.0442226 | 0.13379106 | 0.03188703 | 0.05765306  | 0.12549672  | 0.05823115 | 0.076316303  | 0.00981164  |

| San Diego Gas and Electric    |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--|
| Average Year Forecasts (Mnth) |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| YEAR                          | MDTH1   | MDTH2   | MDTH3   | MDTH4   | MDTH5   | MDTH6   | MDTH7   | MDTH8   | MDTH9   | MDTH10  | MDTH11  | MDTH12  | TOTAL    |  |
| 2010                          | 1861.02 | 1837.14 | 1597.87 | 1525.96 | 1380.83 | 1241.23 | 1189.66 | 1132.23 | 1207.18 | 1243.18 | 1567.96 | 1848.20 | 17632.48 |  |
| 2011                          | 1842.32 | 1818.68 | 1581.81 | 1510.63 | 1366.96 | 1228.76 | 1177.71 | 1120.86 | 1195.05 | 1230.68 | 1552.20 | 1829.63 | 17455.28 |  |
| 2012                          | 1814.02 | 1790.74 | 1557.51 | 1487.42 | 1345.96 | 1209.88 | 1159.62 | 1103.64 | 1176.69 | 1211.78 | 1528.36 | 1801.52 | 17187.13 |  |
| 2013                          | 1788.95 | 1766.00 | 1536.00 | 1466.87 | 1327.36 | 1193.17 | 1143.60 | 1088.39 | 1160.44 | 1195.04 | 1507.24 | 1776.63 | 16949.68 |  |
| 2014                          | 1763.32 | 1740.69 | 1513.98 | 1445.85 | 1308.34 | 1176.07 | 1127.21 | 1072.79 | 1143.81 | 1177.91 | 1485.64 | 1751.17 | 16706.78 |  |
| 2015                          | 1728.71 | 1706.53 | 1484.27 | 1417.48 | 1282.67 | 1152.99 | 1105.09 | 1051.74 | 1121.36 | 1154.80 | 1456.49 | 1716.81 | 16378.94 |  |
| 2016                          | 1699.66 | 1677.85 | 1459.33 | 1393.66 | 1261.11 | 1133.61 | 1086.52 | 1034.07 | 1102.52 | 1135.39 | 1432.01 | 1687.96 | 16103.69 |  |
|                               |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
|                               |         |         |         |         |         |         |         |         |         |         |         |         |          |  |

| San Diego Gas and Electric |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--|
| Cold Year Forecasts (Mdth) |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| YEAR                       | MDTH1   | MDTH2   | MDTH3   | MDTH4   | MDTH5   | MDTH6   | MDTH7   | MDTH8   | MDTH9   | MDTH10  | MDTH11  | MDTH12  | TOTAL    |  |
| 2010                       | 2015.22 | 1984.85 | 1680.50 | 1589.10 | 1404.36 | 1226.75 | 1163.46 | 1294.48 | 1187.04 | 1229.20 | 1642.23 | 1998.94 | 18416.11 |  |
| 2011                       | 1994.96 | 1964.90 | 1663.61 | 1573.13 | 1390.24 | 1214.42 | 1151.77 | 1281.47 | 1175.11 | 1216.85 | 1625.73 | 1978.86 | 18231.04 |  |
| 2012                       | 1964.32 | 1934.71 | 1638.05 | 1548.96 | 1368.89 | 1195.76 | 1134.07 | 1261.78 | 1157.06 | 1198.16 | 1600.75 | 1948.46 | 17950.97 |  |
| 2013                       | 1937.18 | 1907.98 | 1615.42 | 1527.56 | 1349.98 | 1179.24 | 1118.41 | 1244.35 | 1141.07 | 1181.60 | 1578.64 | 1921.54 | 17702.98 |  |
| 2014                       | 1909.42 | 1880.64 | 1592.27 | 1505.67 | 1330.63 | 1162.34 | 1102.38 | 1226.52 | 1124.72 | 1164.67 | 1556.01 | 1894.00 | 17449.28 |  |
| 2015                       | 1871.95 | 1843.74 | 1561.03 | 1476.12 | 1304.52 | 1139.53 | 1080.75 | 1202.45 | 1102.65 | 1141.82 | 1525.48 | 1856.83 | 17106.86 |  |
| 2016                       | 1840.49 | 1812.75 | 1534.80 | 1451.32 | 1282.60 | 1120.38 | 1062.59 | 1182.24 | 1084.12 | 1122.63 | 1499.84 | 1825.63 | 16819.39 |  |

Com3Hot

| San Diego Gas and Electric |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--|
| Hot Year Forecast (Mdth)   |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| YEAR                       | MDTH1   | MDTH2   | MDTH3   | MDTH4   | MDTH5   | MDTH6   | MDTH7   | MDTH8   | MDTH9   | MDTH10  | MDTH11  | MDTH12  | TOTAL    |  |
| 2010                       | 1706.82 | 1689.43 | 1515.24 | 1463.01 | 1357.31 | 1255.72 | 1215.87 | 1294.48 | 1234.04 | 1257.15 | 1493.48 | 1697.46 | 17180.02 |  |
| 2011                       | 1689.67 | 1672.46 | 1500.01 | 1448.31 | 1343.67 | 1243.10 | 1203.65 | 1281.47 | 1221.64 | 1244.52 | 1478.47 | 1680.40 | 17007.36 |  |
| 2012                       | 1663.71 | 1646.76 | 1476.97 | 1426.06 | 1323.03 | 1224.00 | 1185.16 | 1261.78 | 1202.87 | 1225.40 | 1455.76 | 1654.58 | 16746.10 |  |
| 2013                       | 1640.73 | 1624.01 | 1456.57 | 1406.36 | 1304.75 | 1207.09 | 1168.78 | 1244.35 | 1186.26 | 1208.47 | 1435.65 | 1631.73 | 16514.75 |  |
| 2014                       | 1617.22 | 1600.74 | 1435.69 | 1386.20 | 1286.05 | 1189.79 | 1152.04 | 1226.52 | 1169.26 | 1191.15 | 1415.08 | 1608.34 | 16278.07 |  |
| 2015                       | 1585.48 | 1569.33 | 1407.52 | 1359.00 | 1260.81 | 1166.45 | 1129.43 | 1202.45 | 1146.31 | 1167.78 | 1387.31 | 1576.78 | 15958.64 |  |
| 2016                       | 1558.84 | 1542.96 | 1383.87 | 1336.16 | 1239.63 | 1146.84 | 1110.45 | 1182.24 | 1127.05 | 1148.15 | 1363.99 | 1550.28 | 15690.46 |  |



Com3Bas

| San Diego Gas and Electric |         |         |         |         |         |         |         |         |         |         |         |         |         |          |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Base Year Forecast (Mdth)  |         |         |         |         |         |         |         |         |         |         |         |         |         |          |
| YEAR                       | MDTH1   | MDTH2   | MDTH3   | MDTH4   | MDTH5   | MDTH6   | MDTH7   | MDTH8   | MDTH9   | MDTH10  | MDTH11  | MDTH12  | TOTAL   |          |
| 2010                       | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 1294.48 | 15533.73 |
| 2011                       | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 1281.47 | 15377.62 |
| 2012                       | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 1261.78 | 15141.39 |
| 2013                       | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 1244.35 | 14932.21 |
| 2014                       | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 1226.52 | 14718.22 |
| 2015                       | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 1202.45 | 14429.40 |
| 2016                       | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 1182.24 | 14186.92 |

## GN3 Industrial DATA TABLES

## G10 Industrial DATA TABLES

**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 The Year the Equipment Was Installed by Business Types**

| <u>Business Type</u> | <u>Fire_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Water_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Space_</u><br><u>Heat</u> | <u>Water_</u><br><u>Heat</u> | <u>Dryer</u> | <u>Furnace_</u><br><u>Oven_</u><br><u>Kiln</u> | <u>AC</u> | <u>Engine</u> | <u>Other</u> |
|----------------------|---|--|------------------------------|------------------------------|--------------|--|-----------|---------------|--------------|
| Mining               | 1981  | 1974   | 1978                         | 1978                         | 1968         | 1980   | 1973      | 1980          | 1975         |
| Food                 | 1980  | 1982   | 1975                         | 1978                         | 1976         | 1983   | 1970      | 1987          | 1977         |
| Textile              | 1985  | 1979   | 1977                         | 1978                         | 1981         | 1976   | 1976      |               | 1979         |
| Wood_Paper           | 1979  | 1975   | 1975                         | 1976                         | 1976         | 1976   | 1976      |               | 1980         |
| Chemical             | 1980  | 1980   | 1976                         | 1977                         | 1967         | 1976   | 1974      | 1980          | 1979         |
| Petroleum            | 1980  | 1981   | 1974                         | 1977                         | 1975         | 1979   |           | 1972          | 1978         |
| Stone                | 1980  | 1973   | 1975                         | 1977                         | 1980         | 1978   | 1982      |               | 1977         |
| Primary_Metal        | 1986  | 1979   | 1975                         | 1976                         | 1976         | 1977   | 1978      |               | 1974         |
| Fabricated_Metal     | 1982  | 1981   | 1976                         | 1977                         | 1979         | 1979   | 1976      | 1972          | 1976         |
| Transport            | 1980  | 1978   | 1976                         | 1976                         | 1980         | 1980   | 1974      | 1988          | 1976         |
| Misc                 | 1979  | 1980   | 1976                         | 1976                         | 1978         | 1978   | 1976      | 1979          | 1977         |

**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
**Electric Price Forecast**

(Cent/KWH)

**(a) Average Price Forecast**

| <u>Year</u> | <u>Chemical</u> | <u>Fab Metal</u> | <u>Food</u> | <u>Mining</u> | <u>Petroleum</u> | <u>Prim Metal</u> | <u>Stone</u> | <u>Textile</u> | <u>Transport</u> | <u>Wood Paper</u> | <u>Misc</u> |
|-------------|-----------------|------------------|-------------|---------------|------------------|-------------------|--------------|----------------|------------------|-------------------|-------------|
| 2010        | 13.374          | 13.611           | 13.361      | 13.698        | 13.926           | 13.020            | 14.550       | 14.055         | 14.613           | 14.443            | 15.442      |
| 2011        | 13.319          | 13.559           | 13.306      | 13.651        | 13.880           | 12.958            | 14.516       | 14.010         | 14.580           | 14.411            | 15.430      |
| 2012        | 14.341          | 14.569           | 14.327      | 14.657        | 14.874           | 13.996            | 15.481       | 14.996         | 15.542           | 15.384            | 16.357      |
| 2013        | 15.003          | 15.228           | 14.989      | 15.316        | 15.529           | 14.662            | 16.129       | 15.650         | 16.189           | 16.034            | 16.994      |
| 2014        | 15.485          | 15.706           | 15.471      | 15.793        | 16.003           | 15.148            | 16.595       | 16.122         | 16.654           | 16.501            | 17.448      |
| 2015        | 15.889          | 16.087           | 15.877      | 16.166        | 16.354           | 15.588            | 16.883       | 16.459         | 16.936           | 16.800            | 17.649      |
| 2016        | 16.269          | 16.463           | 16.257      | 16.540        | 16.724           | 15.973            | 17.243       | 16.827         | 17.295           | 17.162            | 17.994      |

**(b) Marginal Price Forecast**

| <u>Year</u> | <u>Chemical</u> | <u>Fab Metal</u> | <u>Food</u> | <u>Mining</u> | <u>Petroleum</u> | <u>Prim Metal</u> | <u>Stone</u> | <u>Textile</u> | <u>Transport</u> | <u>Wood Paper</u> | <u>Misc</u> |
|-------------|-----------------|------------------|-------------|---------------|------------------|-------------------|--------------|----------------|------------------|-------------------|-------------|
| 2010        | 10.808          | 10.914           | 10.775      | 10.910        | 11.009           | 10.576            | 11.249       | 10.966         | 11.268           | 11.298            | 11.759      |
| 2011        | 10.770          | 10.878           | 10.736      | 10.874        | 10.975           | 10.534            | 11.219       | 10.931         | 11.238           | 11.268            | 11.737      |
| 2012        | 11.566          | 11.668           | 11.535      | 11.664        | 11.759           | 11.344            | 11.988       | 11.718         | 12.006           | 12.035            | 12.475      |
| 2013        | 12.086          | 12.186           | 12.055      | 12.183        | 12.276           | 11.868            | 12.501       | 12.235         | 12.519           | 12.547            | 12.980      |
| 2014        | 12.463          | 12.561           | 12.433      | 12.558        | 12.649           | 12.249            | 12.871       | 12.610         | 12.888           | 12.916            | 13.341      |
| 2015        | 12.758          | 12.845           | 12.731      | 12.842        | 12.923           | 12.568            | 13.120       | 12.888         | 13.135           | 13.160            | 13.537      |
| 2016        | 13.054          | 13.138           | 13.027      | 13.136        | 13.215           | 12.868            | 13.407       | 13.181         | 13.422           | 13.446            | 13.814      |

## Gas Price Forecast (\$/Therm)

**(a) Average Price Forecast**

| <u>Year</u> | <u>Price</u><br><u>Deflator</u> | <u>Chemical</u> | <u>Fabricated</u><br><u>Metal</u> | <u>Food</u> | <u>Mining</u> | <u>Petroleum</u> | <u>Primary</u><br><u>Metal</u> | <u>Stone</u> | <u>Textile</u> | <u>Transport</u> | <u>Wood Paper</u> | <u>Misc</u> |
|-------------|---------------------------------|-----------------|-----------------------------------|-------------|---------------|------------------|--------------------------------|--------------|----------------|------------------|-------------------|-------------|
| 2010        | 100.00                          | 0.6545          | 0.6661                            | 0.6539      | 0.6704        | 0.6816           | 0.6372                         | 0.7121       | 0.6879         | 0.7152           | 0.7068            | 0.7558      |
| 2011        | 101.74                          | 0.6241          | 0.6353                            | 0.6234      | 0.6396        | 0.6504           | 0.6071                         | 0.6802       | 0.6564         | 0.6832           | 0.6753            | 0.7230      |
| 2012        | 103.73                          | 0.6896          | 0.7006                            | 0.6890      | 0.7048        | 0.7153           | 0.6730                         | 0.7444       | 0.7211         | 0.7474           | 0.7398            | 0.7865      |
| 2013        | 106.10                          | 0.7298          | 0.7407                            | 0.7291      | 0.7450        | 0.7554           | 0.7132                         | 0.7846       | 0.7613         | 0.7875           | 0.7799            | 0.8266      |
| 2014        | 108.61                          | 0.7606          | 0.7715                            | 0.7599      | 0.7757        | 0.7861           | 0.7441                         | 0.8151       | 0.7919         | 0.8180           | 0.8105            | 0.8570      |
| 2015        | 111.12                          | 0.8671          | 0.8779                            | 0.8664      | 0.8821        | 0.8924           | 0.8506                         | 0.9213       | 0.8982         | 0.9242           | 0.9168            | 0.9631      |
| 2016        | 113.71                          | 0.9017          | 0.9124                            | 0.9010      | 0.9167        | 0.9269           | 0.8853                         | 0.9557       | 0.9326         | 0.9585           | 0.9512            | 0.9973      |

**(b) Marginal Price Forecast**

| <u>Year</u> | <u>Price</u><br><u>Deflator</u> | <u>Chemical</u> | <u>Fabricated</u><br><u>Metal</u> | <u>Food</u> | <u>Mining</u> | <u>Petroleum</u> | <u>Primary</u><br><u>Metal</u> | <u>Stone</u> | <u>Textile</u> | <u>Transport</u> | <u>Wood Paper</u> | <u>Misc</u> |
|-------------|---------------------------------|-----------------|-----------------------------------|-------------|---------------|------------------|--------------------------------|--------------|----------------|------------------|-------------------|-------------|
| 2010        | 100.00                          | 0.6158          | 0.6218                            | 0.6139      | 0.6216        | 0.6273           | 0.6026                         | 0.6410       | 0.6248         | 0.6420           | 0.6437            | 0.6700      |
| 2011        | 101.74                          | 0.5863          | 0.5921                            | 0.5844      | 0.5920        | 0.5974           | 0.5734                         | 0.6107       | 0.5951         | 0.6117           | 0.6134            | 0.6389      |
| 2012        | 103.73                          | 0.6526          | 0.6583                            | 0.6508      | 0.6581        | 0.6635           | 0.6401                         | 0.6764       | 0.6612         | 0.6774           | 0.6790            | 0.7039      |
| 2013        | 106.10                          | 0.6928          | 0.6985                            | 0.6910      | 0.6984        | 0.7037           | 0.6803                         | 0.7166       | 0.7014         | 0.7176           | 0.7192            | 0.7441      |
| 2014        | 108.61                          | 0.7238          | 0.7294                            | 0.7220      | 0.7293        | 0.7346           | 0.7113                         | 0.7474       | 0.7323         | 0.7484           | 0.7500            | 0.7747      |
| 2015        | 111.12                          | 0.8304          | 0.8360                            | 0.8286      | 0.8359        | 0.8411           | 0.8180                         | 0.8539       | 0.8389         | 0.8549           | 0.8565            | 0.8811      |
| 2016        | 113.71                          | 0.8652          | 0.8708                            | 0.8634      | 0.8706        | 0.8759           | 0.8529                         | 0.8886       | 0.8736         | 0.8896           | 0.8911            | 0.9156      |

**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 Historical Throughput and Customer Counts**

| <u>Business Type</u> | <u>therms_</u><br><u>2010</u> | <u>meters_</u><br><u>2010</u> | <u>meters_</u><br><u>2010_</u><br><u>ExCust</u> | <u>meters_</u><br><u>2010_</u><br><u>NewCust</u> | <u>avgUse_</u><br><u>2010_</u><br><u>ExCust</u> | <u>avgUse_</u><br><u>2010_</u><br><u>NewCust</u> | <u>Price</u><br><u>Elasticity</u> | <u>Employment</u><br><u>Elasticity</u> |
|----------------------|-------------------------------|-------------------------------|---|--|---|--|-----------------------------------|--|
| Mining               | 5355949.83                    | 236                           | 234   | 2  | 22126.48  | 89176.79   | 0.000000                          | 0.321451                               |
| Food                 | 70254926.46                   | 2798                          | 2750  | 48   | 25497.13  | 2871.22  | -0.190795                         | 1.242506                               |
| Textile              | 18132955.39                   | 637                           | 636   | 1  | 28507.50  | 2187.90  | 0.000000                          | 0.033325                               |
| Wood_Paper           | 7734907.74                    | 563                           | 561   | 2  | 13787.05  | 186.14   | 0.000000                          | 0.508272                               |
| Chemical             | 18736798.59                   | 995                           | 988   | 7  | 18953.45  | 1541.88  | -0.080517                         | 0.650067                               |
| Petroleum            | 8101189.71                    | 145                           | 143   | 2  | 56617.37  | 2453.17  | -0.180563                         | 0.084537                               |
| Stone                | 5716154.85                    | 533                           | 529   | 4  | 10796.83  | 1157.66  | 0.000000                          | 0.416909                               |
| Prim_Metal           | 10279470.09                   | 381                           | 381   | 0  | 26980.24  | 0.00   | 0.000000                          | 0.956685                               |
| Fab_Metal            | 25340452.07                   | 2350                          | 2340  | 10   | 10826.75  | 585.60   | -0.137441                         | 1.023881                               |
| Transport            | 15198610.58                   | 2038                          | 2036  | 2  | 7464.69   | 247.36   | 0.000000                          | 0.402505                               |
| Misc                 | 41352915.28                   | 8448                          | 8407  | 41   | 4910.17   | 1783.76  | -0.108307                         | 0.879307                               |
| <b>Total</b>         | <b>226204330.60</b>           | <b>19124</b>                  |   |  |   |  |                                   |  |

**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
**Average Use Per Meter**                      therm

| <u>Business Type</u> | <u>Fire_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Water_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Space_</u><br><u>Heat</u> | <u>Water_</u><br><u>Heat</u> | <u>Dryer</u> | <u>Furnace_</u><br><u>Oven_</u><br><u>Kiln</u> | <u>AC</u> | <u>Engine</u> | <u>Other</u> | <u>Total</u> |
|----------------------|---|--|------------------------------|------------------------------|--------------|--|-----------|---------------|--------------|--------------|
| <b>Mining</b>        | 4366.6  | 42.6   | 491.8                        | 121.7                        | 1553.1       | 1535.6   | 11.0      | 1218.1        | 4169.3       | 13509.8      |
| <b>Food</b>          | 16172.7                                       | 3829.2   | 1397.9                       | 549.5                        | 1970.7       | 4751.6   | 95.4      | 397.2         | 3383.0       | 32547.2      |
| <b>Textile</b>       | 13453.1                                       | 3495.6   | 435.2                        | 874.1                        | 8247.0       | 1773.6   | 282.9     | 0.0           | 904.9        | 29466.4      |
| <b>Wood_Paper</b>    | 4003.5  | 1313.9   | 895.2                        | 91.2                         | 727.6        | 1271.4   | 12.3      | 0.0           | 1333.4       | 9648.5       |
| <b>Chemical</b>      | 5933.3  | 3338.2   | 757.4                        | 575.4                        | 49.0         | 1093.9   | 6.3       | 0.3           | 3051.2       | 14805.0      |
| <b>Petroleum</b>     | 7748.0  | 1953.7   | 342.9                        | 449.8                        | 25523.9      | 112.3  | 0.0       | 34.5          | 10240.9      | 46406.0      |
| <b>Stone</b>         | 1797.2  | 357.2  | 697.5                        | 675.5                        | 3176.5       | 6897.1   | 127.4     | 0.0           | 1204.3       | 14932.7      |
| <b>Prim_Metal</b>    | 442.0   | 1396.6   | 1205.0                       | 287.3                        | 59.1         | 25647.9  | 237.4     | 0.0           | 2342.9       | 31618.2      |
| <b>Fab_Metal</b>     | 1535.4  | 1498.7   | 1207.0                       | 266.6                        | 133.7        | 3842.0   | 20.7      | 0.0           | 2434.7       | 10938.7      |
| <b>Transport</b>     | 387.3   | 225.6  | 666.8                        | 192.0                        | 424.5        | 723.0  | 5.7       | 2.5           | 373.0        | 3000.4       |
| <b>Misc</b>          | 750.9   | 528.1  | 496.4                        | 138.2                        | 336.2        | 1853.1   | 33.0      | 6.0           | 952.2        | 5094.1       |



**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 Use Per Meter for New Customers**      therm

| <u>Business Type</u> | <u>Fire_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Water_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Space_</u><br><u>Heat</u> | <u>Water_</u><br><u>Heat</u> | <u>Dryer</u> | <u>Furnace_</u><br><u>Oven_</u><br><u>Kiln</u> | <u>AC</u> | <u>Engine</u> | <u>Other</u> | <u>Total</u> |
|----------------------|---|--|------------------------------|------------------------------|--------------|--|-----------|---------------|--------------|--------------|
| Mining               | 0.0   | 0.0  | 0.0                          | 0.0                          | 0.0          | 0.0  | 0.0       | 35872.2       | 0.0          | 35872.2      |
| Food                 | 13791.7                                       | 2.8  | 205.1                        | 225.3                        | 0.0          | 0.0  | 0.0       | 0.0           | 0.0          | 14224.8      |
| Textile              | 0.0   | 0.0  | 0.0                          | 0.0                          | 0.0          | 0.0  | 0.0       | 0.0           | 0.0          | 0.0          |
| Wood_Paper           |   |  |                              |                              |              |  |           |               |              | 0.0          |
| Chemical             | 0.0   | 0.0  | 0.0                          | 0.0                          | 0.0          | 0.0  | 0.0       | 0.0           | 17866.6      | 17866.6      |
| Petroleum            | 0.0   | 0.0  | 0.0                          | 0.0                          | 140409.4     | 0.0  | 0.0       | 0.0           | 0.0          | 140409.4     |
| Stone                | 0.0   | 0.0  | 0.0                          | 0.0                          | 0.0          | 0.0  | 0.0       | 0.0           | 0.0          | 0.0          |
| Prim_Metal           | 0.0   | 0.0  | 0.0                          | 891.7                        | 0.0          | 14986.1  | 0.0       | 0.0           | 4995.4       | 20873.2      |
| Fab_Metal            | 0.0   | 0.0  | 558.2                        | 0.0                          | 0.0          | 3041.6   | 0.0       | 0.0           | 8110.9       | 11710.8      |
| Transport            | 0.0   | 0.0  | 0.0                          | 0.0                          | 0.0          | 2306.4   | 0.0       | 0.0           | 331.4        | 2637.8       |
| Misc                 | 612.3   | 0.0  | 0.0                          | 5.0                          | 2182.2       | 1428.8   | 0.0       | 0.0           | 983.8        | 5212.0       |

**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 Electric UEC (Kwh/SqFt)**

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

**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
**GAS UEC** (Therm per SqFt.)

| <u>Business Type</u> | <u>Fire_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Water_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Space_</u><br><u>Heat</u> | <u>Water_</u><br><u>Heat</u> | <u>Dryer</u> | <u>Furnace_</u><br><u>Oven_</u><br><u>Kiln</u> | <u>AC</u> | <u>Engine</u> | <u>Other</u> |
|----------------------|---|--|------------------------------|------------------------------|--------------|--|-----------|---------------|--------------|
| Mining               | 587697  | 5728   | 1099                         | 281                          | 163309       | 67709  | 159       | 140010        | 4169         |
| Food                 | 48371   | 11453  | 3801                         | 1088                         | 51807        | 38092  | 1210      | 56748         | 3383         |
| Textile              | 69640   | 18095  | 1014                         | 2073                         | 185827       | 52133  | 3638      | 0             | 905          |
| Wood_Paper           | 538832  | 176840   | 2355                         | 199                          | 25503        | 48049  | 160       | 0             | 1333         |
| Chemical             | 57040   | 32092  | 1693                         | 1327                         | 1288         | 28940  | 79        | 36            | 3051         |
| Petroleum            | 74485   | 18782  | 766                          | 1037                         | 670974       | 2971   | 0         | 4932          | 10241        |
| Stone                | 241878  | 48074  | 1559                         | 1558                         | 334016       | 304106   | 1844      | 0             | 1204         |
| Primary_Metal        | 8499  | 26852  | 2693                         | 636                          | 1243         | 678517   | 3232      | 0             | 2343         |
| Fabricated_Metal     | 29520   | 28816  | 2697                         | 591                          | 2811         | 101640   | 281       | 0             | 2435         |
| Transportation       | 3723  | 2169   | 1490                         | 443                          | 11159        | 19127  | 71        | 353           | 373          |
| Miscellaneous        | 7219  | 5077   | 1109                         | 319                          | 8838         | 49023  | 413       | 859           | 952          |

**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 Gas Market Shares**

| <u>Business Type</u> | <u>Fire_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Water_</u><br><u>Tube_</u><br><u>Boiler</u> | <u>Space_</u><br><u>Heat</u> | <u>Water_</u><br><u>Heat</u> | <u>Dryer</u> | <u>Furnace_</u><br><u>Oven_</u><br><u>Kiln</u> | <u>AC</u> | <u>Engine</u> | <u>Other</u> |
|----------------------|---|--|------------------------------|------------------------------|--------------|--|-----------|---------------|--------------|
| Chemical             | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Fabricated_Metal     | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Food                 | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Mining               | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Miscellaneous        | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Petroleum            | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Primary_Metal        | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Stone                | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Textile              | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Transportation       | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |
| Wood_Paper           | 0.74  | 0.74   | 0.61                         | 0.59                         | 0.32         | 0.38   | 0.11      | 0.01          | 1            |

**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
 Saturation Rate

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

**Southern California Gas Company  
2013 TCAP - Industrial G10  
UEC, Equipment Cost and Efficiency Shares**

**Where Fuel = 1 (gas) and = 2 (electric), and  
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)**

| <u>Business Type</u> | <u>End Use</u>    | <u>Fuel</u> | <u>Efficiency</u> | <u>EQcost</u> |
|----------------------|-------------------|-------------|-------------------|---------------|
| Mining               | Fire_Tube_Boiler  | 1           | 1                 | 3,907,010     |
| Mining               | Fire_Tube_Boiler  | 1           | 2                 | 4,297,711     |
| Mining               | Fire_Tube_Boiler  | 1           | 3                 | 4,688,412     |
| Mining               | Fire_Tube_Boiler  | 2           | 1                 | 3,125,608     |
| Mining               | Fire_Tube_Boiler  | 2           | 2                 | 3,438,169     |
| Mining               | Fire_Tube_Boiler  | 2           | 3                 | 3,750,729     |
| Mining               | Water_Tube_Boiler | 1           | 1                 | 38,080        |
| Mining               | Water_Tube_Boiler | 1           | 2                 | 41,888        |
| Mining               | Water_Tube_Boiler | 1           | 3                 | 45,696        |
| Mining               | Water_Tube_Boiler | 2           | 1                 | 30,464        |
| Mining               | Water_Tube_Boiler | 2           | 2                 | 33,510        |
| Mining               | Water_Tube_Boiler | 2           | 3                 | 36,557        |
| Mining               | Space_Heat        | 1           | 1                 | 7,306         |
| Mining               | Space_Heat        | 1           | 2                 | 8,037         |
| Mining               | Space_Heat        | 1           | 3                 | 8,767         |
| Mining               | Space_Heat        | 2           | 1                 | 5,845         |
| Mining               | Space_Heat        | 2           | 2                 | 6,429         |
| Mining               | Space_Heat        | 2           | 3                 | 7,014         |
| Mining               | Water_Heat        | 1           | 1                 | 1,868         |
| Mining               | Water_Heat        | 1           | 2                 | 2,055         |
| Mining               | Water_Heat        | 1           | 3                 | 2,242         |
| Mining               | Water_Heat        | 2           | 1                 | 1,494         |
| Mining               | Water_Heat        | 2           | 2                 | 1,644         |
| Mining               | Water_Heat        | 2           | 3                 | 1,793         |
| Mining               | Dryer             | 1           | 1                 | 1,085,678     |
| Mining               | Dryer             | 1           | 2                 | 1,194,246     |
| Mining               | Dryer             | 1           | 3                 | 1,302,814     |
| Mining               | Dryer             | 2           | 1                 | 868,543       |
| Mining               | Dryer             | 2           | 2                 | 955,397       |
| Mining               | Dryer             | 2           | 3                 | 1,042,251     |
| Mining               | Furnace_Oven_Kiln | 1           | 1                 | 450,129       |
| Mining               | Furnace_Oven_Kiln | 1           | 2                 | 495,142       |
| Mining               | Furnace_Oven_Kiln | 1           | 3                 | 540,155       |
| Mining               | Furnace_Oven_Kiln | 2           | 1                 | 360,104       |
| Mining               | Furnace_Oven_Kiln | 2           | 2                 | 396,114       |
| Mining               | Furnace_Oven_Kiln | 2           | 3                 | 432,124       |
| Mining               | AC                | 1           | 1                 | 1,057         |
| Mining               | AC                | 1           | 2                 | 1,163         |
| Mining               | AC                | 1           | 3                 | 1,268         |
| Mining               | AC                | 2           | 1                 | 846           |
| Mining               | AC                | 2           | 2                 | 930           |
| Mining               | AC                | 2           | 3                 | 1,015         |
| Mining               | Engine            | 1           | 1                 | 930,786       |
| Mining               | Engine            | 1           | 2                 | 1,023,865     |
| Mining               | Engine            | 1           | 3                 | 1,116,944     |
| Mining               | Engine            | 2           | 1                 | 744,629       |
| Mining               | Engine            | 2           | 2                 | 819,092       |
| Mining               | Engine            | 2           | 3                 | 893,555       |
| Mining               | Other             | 1           | 1                 | -             |
| Mining               | Other             | 1           | 2                 | -             |
| Mining               | Other             | 1           | 3                 | -             |
| Mining               | Other             | 2           | 1                 | -             |
| Mining               | Other             | 2           | 2                 | -             |
| Mining               | Other             | 2           | 3                 | -             |
| Food                 | Fire_Tube_Boiler  | 1           | 1                 | 303,093       |
| Food                 | Fire_Tube_Boiler  | 1           | 2                 | 333,402       |
| Food                 | Fire_Tube_Boiler  | 1           | 3                 | 363,711       |
| Food                 | Fire_Tube_Boiler  | 2           | 1                 | 242,474       |
| Food                 | Fire_Tube_Boiler  | 2           | 2                 | 266,722       |

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|         |                   |   |   |         |
|---------|-------------------|---|---|---------|
| Food    | Fire_Tube_Boiler  | 2 | 3 | 290,969 |
| Food    | Water_Tube_Boiler | 1 | 1 | 71,765  |
| Food    | Water_Tube_Boiler | 1 | 2 | 78,941  |
| Food    | Water_Tube_Boiler | 1 | 3 | 86,117  |
| Food    | Water_Tube_Boiler | 2 | 1 | 57,412  |
| Food    | Water_Tube_Boiler | 2 | 2 | 63,153  |
| Food    | Water_Tube_Boiler | 2 | 3 | 68,894  |
| Food    | Space_Heat        | 1 | 1 | 23,817  |
| Food    | Space_Heat        | 1 | 2 | 26,199  |
| Food    | Space_Heat        | 1 | 3 | 28,580  |
| Food    | Space_Heat        | 2 | 1 | 19,054  |
| Food    | Space_Heat        | 2 | 2 | 20,959  |
| Food    | Space_Heat        | 2 | 3 | 22,864  |
| Food    | Water_Heat        | 1 | 1 | 6,817   |
| Food    | Water_Heat        | 1 | 2 | 7,499   |
| Food    | Water_Heat        | 1 | 3 | 8,181   |
| Food    | Water_Heat        | 2 | 1 | 5,454   |
| Food    | Water_Heat        | 2 | 2 | 5,999   |
| Food    | Water_Heat        | 2 | 3 | 6,545   |
| Food    | Dryer             | 1 | 1 | 324,623 |
| Food    | Dryer             | 1 | 2 | 357,085 |
| Food    | Dryer             | 1 | 3 | 389,547 |
| Food    | Dryer             | 2 | 1 | 259,698 |
| Food    | Dryer             | 2 | 2 | 285,668 |
| Food    | Dryer             | 2 | 3 | 311,638 |
| Food    | Furnace_Oven_Kiln | 1 | 1 | 238,684 |
| Food    | Furnace_Oven_Kiln | 1 | 2 | 262,553 |
| Food    | Furnace_Oven_Kiln | 1 | 3 | 286,421 |
| Food    | Furnace_Oven_Kiln | 2 | 1 | 190,948 |
| Food    | Furnace_Oven_Kiln | 2 | 2 | 210,042 |
| Food    | Furnace_Oven_Kiln | 2 | 3 | 229,137 |
| Food    | AC                | 1 | 1 | 7,582   |
| Food    | AC                | 1 | 2 | 8,340   |
| Food    | AC                | 1 | 3 | 9,098   |
| Food    | AC                | 2 | 1 | 6,065   |
| Food    | AC                | 2 | 2 | 6,672   |
| Food    | AC                | 2 | 3 | 7,279   |
| Food    | Engine            | 1 | 1 | 355,583 |
| Food    | Engine            | 1 | 2 | 391,141 |
| Food    | Engine            | 1 | 3 | 426,700 |
| Food    | Engine            | 2 | 1 | 284,466 |
| Food    | Engine            | 2 | 2 | 312,913 |
| Food    | Engine            | 2 | 3 | 341,360 |
| Food    | Other             | 1 | 1 | -       |
| Food    | Other             | 1 | 2 | -       |
| Food    | Other             | 1 | 3 | -       |
| Food    | Other             | 2 | 1 | -       |
| Food    | Other             | 2 | 2 | -       |
| Food    | Other             | 2 | 3 | -       |
| Textile | Fire_Tube_Boiler  | 1 | 1 | 440,682 |
| Textile | Fire_Tube_Boiler  | 1 | 2 | 484,750 |
| Textile | Fire_Tube_Boiler  | 1 | 3 | 528,818 |
| Textile | Fire_Tube_Boiler  | 2 | 1 | 352,546 |
| Textile | Fire_Tube_Boiler  | 2 | 2 | 387,800 |
| Textile | Fire_Tube_Boiler  | 2 | 3 | 423,055 |
| Textile | Water_Tube_Boiler | 1 | 1 | 114,505 |
| Textile | Water_Tube_Boiler | 1 | 2 | 125,956 |
| Textile | Water_Tube_Boiler | 1 | 3 | 137,406 |
| Textile | Water_Tube_Boiler | 2 | 1 | 91,604  |
| Textile | Water_Tube_Boiler | 2 | 2 | 100,765 |
| Textile | Water_Tube_Boiler | 2 | 3 | 109,925 |
| Textile | Space_Heat        | 1 | 1 | 6,417   |
| Textile | Space_Heat        | 1 | 2 | 7,058   |
| Textile | Space_Heat        | 1 | 3 | 7,700   |
| Textile | Space_Heat        | 2 | 1 | 5,133   |
| Textile | Space_Heat        | 2 | 2 | 5,647   |
| Textile | Space_Heat        | 2 | 3 | 6,160   |
| Textile | Water_Heat        | 1 | 1 | 13,118  |
| Textile | Water_Heat        | 1 | 2 | 14,430  |
| Textile | Water_Heat        | 1 | 3 | 15,742  |
| Textile | Water_Heat        | 2 | 1 | 10,494  |

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|            |                   |   |   |           |
|------------|-------------------|---|---|-----------|
| Textile    | Water_Heat        | 2 | 2 | 11,544    |
| Textile    | Water_Heat        | 2 | 3 | 12,593    |
| Textile    | Dryer             | 1 | 1 | 1,175,913 |
| Textile    | Dryer             | 1 | 2 | 1,293,505 |
| Textile    | Dryer             | 1 | 3 | 1,411,096 |
| Textile    | Dryer             | 2 | 1 | 940,731   |
| Textile    | Dryer             | 2 | 2 | 1,034,804 |
| Textile    | Dryer             | 2 | 3 | 1,128,877 |
| Textile    | Furnace_Oven_Kiln | 1 | 1 | 329,898   |
| Textile    | Furnace_Oven_Kiln | 1 | 2 | 362,887   |
| Textile    | Furnace_Oven_Kiln | 1 | 3 | 395,877   |
| Textile    | Furnace_Oven_Kiln | 2 | 1 | 263,918   |
| Textile    | Furnace_Oven_Kiln | 2 | 2 | 290,310   |
| Textile    | Furnace_Oven_Kiln | 2 | 3 | 316,702   |
| Textile    | AC                | 1 | 1 | 23,021    |
| Textile    | AC                | 1 | 2 | 25,323    |
| Textile    | AC                | 1 | 3 | 27,626    |
| Textile    | AC                | 2 | 1 | 18,417    |
| Textile    | AC                | 2 | 2 | 20,259    |
| Textile    | AC                | 2 | 3 | 22,100    |
| Textile    | Engine            | 1 | 1 | -         |
| Textile    | Engine            | 1 | 2 | -         |
| Textile    | Engine            | 1 | 3 | -         |
| Textile    | Engine            | 2 | 1 | -         |
| Textile    | Engine            | 2 | 2 | -         |
| Textile    | Engine            | 2 | 3 | -         |
| Textile    | Other             | 1 | 1 | -         |
| Textile    | Other             | 1 | 2 | -         |
| Textile    | Other             | 1 | 3 | -         |
| Textile    | Other             | 2 | 1 | -         |
| Textile    | Other             | 2 | 2 | -         |
| Textile    | Other             | 2 | 3 | -         |
| Wood_Paper | Fire_Tube_Boiler  | 1 | 1 | 3,531,505 |
| Wood_Paper | Fire_Tube_Boiler  | 1 | 2 | 3,884,655 |
| Wood_Paper | Fire_Tube_Boiler  | 1 | 3 | 4,237,806 |
| Wood_Paper | Fire_Tube_Boiler  | 2 | 1 | 2,825,204 |
| Wood_Paper | Fire_Tube_Boiler  | 2 | 2 | 3,107,724 |
| Wood_Paper | Fire_Tube_Boiler  | 2 | 3 | 3,390,245 |
| Wood_Paper | Water_Tube_Boiler | 1 | 1 | 1,159,009 |
| Wood_Paper | Water_Tube_Boiler | 1 | 2 | 1,274,910 |
| Wood_Paper | Water_Tube_Boiler | 1 | 3 | 1,390,811 |
| Wood_Paper | Water_Tube_Boiler | 2 | 1 | 927,207   |
| Wood_Paper | Water_Tube_Boiler | 2 | 2 | 1,019,928 |
| Wood_Paper | Water_Tube_Boiler | 2 | 3 | 1,112,649 |
| Wood_Paper | Space_Heat        | 1 | 1 | 15,435    |
| Wood_Paper | Space_Heat        | 1 | 2 | 16,978    |
| Wood_Paper | Space_Heat        | 1 | 3 | 18,522    |
| Wood_Paper | Space_Heat        | 2 | 1 | 12,348    |
| Wood_Paper | Space_Heat        | 2 | 2 | 13,583    |
| Wood_Paper | Space_Heat        | 2 | 3 | 14,817    |
| Wood_Paper | Water_Heat        | 1 | 1 | 1,304     |
| Wood_Paper | Water_Heat        | 1 | 2 | 1,435     |
| Wood_Paper | Water_Heat        | 1 | 3 | 1,565     |
| Wood_Paper | Water_Heat        | 2 | 1 | 1,043     |
| Wood_Paper | Water_Heat        | 2 | 2 | 1,148     |
| Wood_Paper | Water_Heat        | 2 | 3 | 1,252     |
| Wood_Paper | Dryer             | 1 | 1 | 167,147   |
| Wood_Paper | Dryer             | 1 | 2 | 183,861   |
| Wood_Paper | Dryer             | 1 | 3 | 200,576   |
| Wood_Paper | Dryer             | 2 | 1 | 133,717   |
| Wood_Paper | Dryer             | 2 | 2 | 147,089   |
| Wood_Paper | Dryer             | 2 | 3 | 160,461   |
| Wood_Paper | Furnace_Oven_Kiln | 1 | 1 | 314,913   |
| Wood_Paper | Furnace_Oven_Kiln | 1 | 2 | 346,404   |
| Wood_Paper | Furnace_Oven_Kiln | 1 | 3 | 377,896   |
| Wood_Paper | Furnace_Oven_Kiln | 2 | 1 | 251,931   |
| Wood_Paper | Furnace_Oven_Kiln | 2 | 2 | 277,124   |
| Wood_Paper | Furnace_Oven_Kiln | 2 | 3 | 302,317   |
| Wood_Paper | AC                | 1 | 1 | 1,049     |
| Wood_Paper | AC                | 1 | 2 | 1,154     |
| Wood_Paper | AC                | 1 | 3 | 1,258     |



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|            |                   |   |   |         |
|------------|-------------------|---|---|---------|
| Wood_Paper | AC                | 2 | 1 | 839     |
| Wood_Paper | AC                | 2 | 2 | 923     |
| Wood_Paper | AC                | 2 | 3 | 1,007   |
| Wood_Paper | Engine            | 1 | 1 | -       |
| Wood_Paper | Engine            | 1 | 2 | -       |
| Wood_Paper | Engine            | 1 | 3 | -       |
| Wood_Paper | Engine            | 2 | 1 | -       |
| Wood_Paper | Engine            | 2 | 2 | -       |
| Wood_Paper | Engine            | 2 | 3 | -       |
| Wood_Paper | Other             | 1 | 1 | -       |
| Wood_Paper | Other             | 1 | 2 | -       |
| Wood_Paper | Other             | 1 | 3 | -       |
| Wood_Paper | Other             | 2 | 1 | -       |
| Wood_Paper | Other             | 2 | 2 | -       |
| Wood_Paper | Other             | 2 | 3 | -       |
| Chemical   | Fire_Tube_Boiler  | 1 | 1 | 374,525 |
| Chemical   | Fire_Tube_Boiler  | 1 | 2 | 411,977 |
| Chemical   | Fire_Tube_Boiler  | 1 | 3 | 449,430 |
| Chemical   | Fire_Tube_Boiler  | 2 | 1 | 299,620 |
| Chemical   | Fire_Tube_Boiler  | 2 | 2 | 329,582 |
| Chemical   | Fire_Tube_Boiler  | 2 | 3 | 359,544 |
| Chemical   | Water_Tube_Boiler | 1 | 1 | 210,716 |
| Chemical   | Water_Tube_Boiler | 1 | 2 | 231,788 |
| Chemical   | Water_Tube_Boiler | 1 | 3 | 252,859 |
| Chemical   | Water_Tube_Boiler | 2 | 1 | 168,573 |
| Chemical   | Water_Tube_Boiler | 2 | 2 | 185,430 |
| Chemical   | Water_Tube_Boiler | 2 | 3 | 202,287 |
| Chemical   | Space_Heat        | 1 | 1 | 11,116  |
| Chemical   | Space_Heat        | 1 | 2 | 12,228  |
| Chemical   | Space_Heat        | 1 | 3 | 13,339  |
| Chemical   | Space_Heat        | 2 | 1 | 8,893   |
| Chemical   | Space_Heat        | 2 | 2 | 9,782   |
| Chemical   | Space_Heat        | 2 | 3 | 10,672  |
| Chemical   | Water_Heat        | 1 | 1 | 8,713   |
| Chemical   | Water_Heat        | 1 | 2 | 9,584   |
| Chemical   | Water_Heat        | 1 | 3 | 10,456  |
| Chemical   | Water_Heat        | 2 | 1 | 6,970   |
| Chemical   | Water_Heat        | 2 | 2 | 7,668   |
| Chemical   | Water_Heat        | 2 | 3 | 8,365   |
| Chemical   | Dryer             | 1 | 1 | 8,457   |
| Chemical   | Dryer             | 1 | 2 | 9,303   |
| Chemical   | Dryer             | 1 | 3 | 10,148  |
| Chemical   | Dryer             | 2 | 1 | 6,766   |
| Chemical   | Dryer             | 2 | 2 | 7,442   |
| Chemical   | Dryer             | 2 | 3 | 8,119   |
| Chemical   | Furnace_Oven_Kiln | 1 | 1 | 190,020 |
| Chemical   | Furnace_Oven_Kiln | 1 | 2 | 209,022 |
| Chemical   | Furnace_Oven_Kiln | 1 | 3 | 228,024 |
| Chemical   | Furnace_Oven_Kiln | 2 | 1 | 152,016 |
| Chemical   | Furnace_Oven_Kiln | 2 | 2 | 167,218 |
| Chemical   | Furnace_Oven_Kiln | 2 | 3 | 182,419 |
| Chemical   | AC                | 1 | 1 | 519     |
| Chemical   | AC                | 1 | 2 | 571     |
| Chemical   | AC                | 1 | 3 | 622     |
| Chemical   | AC                | 2 | 1 | 415     |
| Chemical   | AC                | 2 | 2 | 456     |
| Chemical   | AC                | 2 | 3 | 498     |
| Chemical   | Engine            | 1 | 1 | 236     |
| Chemical   | Engine            | 1 | 2 | 260     |
| Chemical   | Engine            | 1 | 3 | 284     |
| Chemical   | Engine            | 2 | 1 | 189     |
| Chemical   | Engine            | 2 | 2 | 208     |
| Chemical   | Engine            | 2 | 3 | 227     |
| Chemical   | Other             | 1 | 1 | -       |
| Chemical   | Other             | 1 | 2 | -       |
| Chemical   | Other             | 1 | 3 | -       |
| Chemical   | Other             | 2 | 1 | -       |
| Chemical   | Other             | 2 | 2 | -       |
| Chemical   | Other             | 2 | 3 | -       |
| Petroleum  | Fire_Tube_Boiler  | 1 | 1 | 461,658 |
| Petroleum  | Fire_Tube_Boiler  | 1 | 2 | 507,824 |

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|           |                   |   |   |           |
|-----------|-------------------|---|---|-----------|
| Petroleum | Fire_Tube_Boiler  | 1 | 3 | 553,990   |
| Petroleum | Fire_Tube_Boiler  | 2 | 1 | 369,326   |
| Petroleum | Fire_Tube_Boiler  | 2 | 2 | 406,259   |
| Petroleum | Fire_Tube_Boiler  | 2 | 3 | 443,192   |
| Petroleum | Water_Tube_Boiler | 1 | 1 | 116,411   |
| Petroleum | Water_Tube_Boiler | 1 | 2 | 128,052   |
| Petroleum | Water_Tube_Boiler | 1 | 3 | 139,693   |
| Petroleum | Water_Tube_Boiler | 2 | 1 | 93,129    |
| Petroleum | Water_Tube_Boiler | 2 | 2 | 102,442   |
| Petroleum | Water_Tube_Boiler | 2 | 3 | 111,754   |
| Petroleum | Space_Heat        | 1 | 1 | 4,748     |
| Petroleum | Space_Heat        | 1 | 2 | 5,222     |
| Petroleum | Space_Heat        | 1 | 3 | 5,697     |
| Petroleum | Space_Heat        | 2 | 1 | 3,798     |
| Petroleum | Space_Heat        | 2 | 2 | 4,178     |
| Petroleum | Space_Heat        | 2 | 3 | 4,558     |
| Petroleum | Water_Heat        | 1 | 1 | 6,427     |
| Petroleum | Water_Heat        | 1 | 2 | 7,070     |
| Petroleum | Water_Heat        | 1 | 3 | 7,713     |
| Petroleum | Water_Heat        | 2 | 1 | 5,142     |
| Petroleum | Water_Heat        | 2 | 2 | 5,656     |
| Petroleum | Water_Heat        | 2 | 3 | 6,170     |
| Petroleum | Dryer             | 1 | 1 | 4,158,697 |
| Petroleum | Dryer             | 1 | 2 | 4,574,567 |
| Petroleum | Dryer             | 1 | 3 | 4,990,436 |
| Petroleum | Dryer             | 2 | 1 | 3,326,957 |
| Petroleum | Dryer             | 2 | 2 | 3,659,653 |
| Petroleum | Dryer             | 2 | 3 | 3,992,349 |
| Petroleum | Furnace_Oven_Kiln | 1 | 1 | 18,414    |
| Petroleum | Furnace_Oven_Kiln | 1 | 2 | 20,256    |
| Petroleum | Furnace_Oven_Kiln | 1 | 3 | 22,097    |
| Petroleum | Furnace_Oven_Kiln | 2 | 1 | 14,731    |
| Petroleum | Furnace_Oven_Kiln | 2 | 2 | 16,205    |
| Petroleum | Furnace_Oven_Kiln | 2 | 3 | 17,678    |
| Petroleum | AC                | 1 | 1 | -         |
| Petroleum | AC                | 1 | 2 | -         |
| Petroleum | AC                | 1 | 3 | -         |
| Petroleum | AC                | 2 | 1 | -         |
| Petroleum | AC                | 2 | 2 | -         |
| Petroleum | AC                | 2 | 3 | -         |
| Petroleum | Engine            | 1 | 1 | 30,569    |
| Petroleum | Engine            | 1 | 2 | 33,625    |
| Petroleum | Engine            | 1 | 3 | 36,682    |
| Petroleum | Engine            | 2 | 1 | 24,455    |
| Petroleum | Engine            | 2 | 2 | 26,900    |
| Petroleum | Engine            | 2 | 3 | 29,346    |
| Petroleum | Other             | 1 | 1 | -         |
| Petroleum | Other             | 1 | 2 | -         |
| Petroleum | Other             | 1 | 3 | -         |
| Petroleum | Other             | 2 | 1 | -         |
| Petroleum | Other             | 2 | 2 | -         |
| Petroleum | Other             | 2 | 3 | -         |
| Stone     | Fire_Tube_Boiler  | 1 | 1 | 1,591,073 |
| Stone     | Fire_Tube_Boiler  | 1 | 2 | 1,750,181 |
| Stone     | Fire_Tube_Boiler  | 1 | 3 | 1,909,288 |
| Stone     | Fire_Tube_Boiler  | 2 | 1 | 1,272,859 |
| Stone     | Fire_Tube_Boiler  | 2 | 2 | 1,400,145 |
| Stone     | Fire_Tube_Boiler  | 2 | 3 | 1,527,431 |
| Stone     | Water_Tube_Boiler | 1 | 1 | 316,231   |
| Stone     | Water_Tube_Boiler | 1 | 2 | 347,854   |
| Stone     | Water_Tube_Boiler | 1 | 3 | 379,477   |
| Stone     | Water_Tube_Boiler | 2 | 1 | 252,985   |
| Stone     | Water_Tube_Boiler | 2 | 2 | 278,283   |
| Stone     | Water_Tube_Boiler | 2 | 3 | 303,582   |
| Stone     | Space_Heat        | 1 | 1 | 10,255    |
| Stone     | Space_Heat        | 1 | 2 | 11,281    |
| Stone     | Space_Heat        | 1 | 3 | 12,306    |
| Stone     | Space_Heat        | 2 | 1 | 8,204     |
| Stone     | Space_Heat        | 2 | 2 | 9,024     |
| Stone     | Space_Heat        | 2 | 3 | 9,845     |
| Stone     | Water_Heat        | 1 | 1 | 10,249    |

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|            |                   |   |   |           |
|------------|-------------------|---|---|-----------|
| Stone      | Water_Heat        | 1 | 2 | 11,273    |
| Stone      | Water_Heat        | 1 | 3 | 12,298    |
| Stone      | Water_Heat        | 2 | 1 | 8,199     |
| Stone      | Water_Heat        | 2 | 2 | 9,019     |
| Stone      | Water_Heat        | 2 | 3 | 9,839     |
| Stone      | Dryer             | 1 | 1 | 2,197,157 |
| Stone      | Dryer             | 1 | 2 | 2,416,873 |
| Stone      | Dryer             | 1 | 3 | 2,636,589 |
| Stone      | Dryer             | 2 | 1 | 1,757,726 |
| Stone      | Dryer             | 2 | 2 | 1,933,498 |
| Stone      | Dryer             | 2 | 3 | 2,109,271 |
| Stone      | Furnace_Oven_Kiln | 1 | 1 | 2,000,409 |
| Stone      | Furnace_Oven_Kiln | 1 | 2 | 2,200,450 |
| Stone      | Furnace_Oven_Kiln | 1 | 3 | 2,400,491 |
| Stone      | Furnace_Oven_Kiln | 2 | 1 | 1,600,327 |
| Stone      | Furnace_Oven_Kiln | 2 | 2 | 1,760,360 |
| Stone      | Furnace_Oven_Kiln | 2 | 3 | 1,920,393 |
| Stone      | AC                | 1 | 1 | 12,130    |
| Stone      | AC                | 1 | 2 | 13,343    |
| Stone      | AC                | 1 | 3 | 14,556    |
| Stone      | AC                | 2 | 1 | 9,704     |
| Stone      | AC                | 2 | 2 | 10,674    |
| Stone      | AC                | 2 | 3 | 11,645    |
| Stone      | Engine            | 1 | 1 | -         |
| Stone      | Engine            | 1 | 2 | -         |
| Stone      | Engine            | 1 | 3 | -         |
| Stone      | Engine            | 2 | 1 | -         |
| Stone      | Engine            | 2 | 2 | -         |
| Stone      | Engine            | 2 | 3 | -         |
| Stone      | Other             | 1 | 1 | -         |
| Stone      | Other             | 1 | 2 | -         |
| Stone      | Other             | 1 | 3 | -         |
| Stone      | Other             | 2 | 1 | -         |
| Stone      | Other             | 2 | 2 | -         |
| Stone      | Other             | 2 | 3 | -         |
| Prim_Metal | Fire_Tube_Boiler  | 1 | 1 | 54,853    |
| Prim_Metal | Fire_Tube_Boiler  | 1 | 2 | 60,338    |
| Prim_Metal | Fire_Tube_Boiler  | 1 | 3 | 65,823    |
| Prim_Metal | Fire_Tube_Boiler  | 2 | 1 | 43,882    |
| Prim_Metal | Fire_Tube_Boiler  | 2 | 2 | 48,270    |
| Prim_Metal | Fire_Tube_Boiler  | 2 | 3 | 52,658    |
| Prim_Metal | Water_Tube_Boiler | 1 | 1 | 173,303   |
| Prim_Metal | Water_Tube_Boiler | 1 | 2 | 190,633   |
| Prim_Metal | Water_Tube_Boiler | 1 | 3 | 207,963   |
| Prim_Metal | Water_Tube_Boiler | 2 | 1 | 138,642   |
| Prim_Metal | Water_Tube_Boiler | 2 | 2 | 152,506   |
| Prim_Metal | Water_Tube_Boiler | 2 | 3 | 166,371   |
| Prim_Metal | Space_Heat        | 1 | 1 | 17,381    |
| Prim_Metal | Space_Heat        | 1 | 2 | 19,119    |
| Prim_Metal | Space_Heat        | 1 | 3 | 20,857    |
| Prim_Metal | Space_Heat        | 2 | 1 | 13,905    |
| Prim_Metal | Space_Heat        | 2 | 2 | 15,295    |
| Prim_Metal | Space_Heat        | 2 | 3 | 16,685    |
| Prim_Metal | Water_Heat        | 1 | 1 | 4,105     |
| Prim_Metal | Water_Heat        | 1 | 2 | 4,515     |
| Prim_Metal | Water_Heat        | 1 | 3 | 4,926     |
| Prim_Metal | Water_Heat        | 2 | 1 | 3,284     |
| Prim_Metal | Water_Heat        | 2 | 2 | 3,612     |
| Prim_Metal | Water_Heat        | 2 | 3 | 3,941     |
| Prim_Metal | Dryer             | 1 | 1 | 8,022     |
| Prim_Metal | Dryer             | 1 | 2 | 8,825     |
| Prim_Metal | Dryer             | 1 | 3 | 9,627     |
| Prim_Metal | Dryer             | 2 | 1 | 6,418     |
| Prim_Metal | Dryer             | 2 | 2 | 7,060     |
| Prim_Metal | Dryer             | 2 | 3 | 7,701     |
| Prim_Metal | Furnace_Oven_Kiln | 1 | 1 | 4,379,149 |
| Prim_Metal | Furnace_Oven_Kiln | 1 | 2 | 4,817,064 |
| Prim_Metal | Furnace_Oven_Kiln | 1 | 3 | 5,254,978 |
| Prim_Metal | Furnace_Oven_Kiln | 2 | 1 | 3,503,319 |
| Prim_Metal | Furnace_Oven_Kiln | 2 | 2 | 3,853,651 |
| Prim_Metal | Furnace_Oven_Kiln | 2 | 3 | 4,203,983 |

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|            |                   |   |   |         |
|------------|-------------------|---|---|---------|
| Prim_Metal | AC                | 1 | 1 | 20,859  |
| Prim_Metal | AC                | 1 | 2 | 22,945  |
| Prim_Metal | AC                | 1 | 3 | 25,031  |
| Prim_Metal | AC                | 2 | 1 | 16,687  |
| Prim_Metal | AC                | 2 | 2 | 18,356  |
| Prim_Metal | AC                | 2 | 3 | 20,025  |
| Prim_Metal | Engine            | 1 | 1 | -       |
| Prim_Metal | Engine            | 1 | 2 | -       |
| Prim_Metal | Engine            | 1 | 3 | -       |
| Prim_Metal | Engine            | 2 | 1 | -       |
| Prim_Metal | Engine            | 2 | 2 | -       |
| Prim_Metal | Engine            | 2 | 3 | -       |
| Prim_Metal | Other             | 1 | 1 | -       |
| Prim_Metal | Other             | 1 | 2 | -       |
| Prim_Metal | Other             | 1 | 3 | -       |
| Prim_Metal | Other             | 2 | 1 | -       |
| Prim_Metal | Other             | 2 | 2 | -       |
| Prim_Metal | Other             | 2 | 3 | -       |
| Fab_Metal  | Fire_Tube_Boiler  | 1 | 1 | 199,496 |
| Fab_Metal  | Fire_Tube_Boiler  | 1 | 2 | 219,446 |
| Fab_Metal  | Fire_Tube_Boiler  | 1 | 3 | 239,395 |
| Fab_Metal  | Fire_Tube_Boiler  | 2 | 1 | 159,597 |
| Fab_Metal  | Fire_Tube_Boiler  | 2 | 2 | 175,557 |
| Fab_Metal  | Fire_Tube_Boiler  | 2 | 3 | 191,516 |
| Fab_Metal  | Water_Tube_Boiler | 1 | 1 | 194,739 |
| Fab_Metal  | Water_Tube_Boiler | 1 | 2 | 214,212 |
| Fab_Metal  | Water_Tube_Boiler | 1 | 3 | 233,686 |
| Fab_Metal  | Water_Tube_Boiler | 2 | 1 | 155,791 |
| Fab_Metal  | Water_Tube_Boiler | 2 | 2 | 171,370 |
| Fab_Metal  | Water_Tube_Boiler | 2 | 3 | 186,949 |
| Fab_Metal  | Space_Heat        | 1 | 1 | 18,226  |
| Fab_Metal  | Space_Heat        | 1 | 2 | 20,049  |
| Fab_Metal  | Space_Heat        | 1 | 3 | 21,872  |
| Fab_Metal  | Space_Heat        | 2 | 1 | 14,581  |
| Fab_Metal  | Space_Heat        | 2 | 2 | 16,039  |
| Fab_Metal  | Space_Heat        | 2 | 3 | 17,497  |
| Fab_Metal  | Water_Heat        | 1 | 1 | 3,994   |
| Fab_Metal  | Water_Heat        | 1 | 2 | 4,393   |
| Fab_Metal  | Water_Heat        | 1 | 3 | 4,793   |
| Fab_Metal  | Water_Heat        | 2 | 1 | 3,195   |
| Fab_Metal  | Water_Heat        | 2 | 2 | 3,515   |
| Fab_Metal  | Water_Heat        | 2 | 3 | 3,834   |
| Fab_Metal  | Dryer             | 1 | 1 | 18,997  |
| Fab_Metal  | Dryer             | 1 | 2 | 20,896  |
| Fab_Metal  | Dryer             | 1 | 3 | 22,796  |
| Fab_Metal  | Dryer             | 2 | 1 | 15,197  |
| Fab_Metal  | Dryer             | 2 | 2 | 16,717  |
| Fab_Metal  | Dryer             | 2 | 3 | 18,237  |
| Fab_Metal  | Furnace_Oven_Kiln | 1 | 1 | 686,883 |
| Fab_Metal  | Furnace_Oven_Kiln | 1 | 2 | 755,571 |
| Fab_Metal  | Furnace_Oven_Kiln | 1 | 3 | 824,260 |
| Fab_Metal  | Furnace_Oven_Kiln | 2 | 1 | 549,507 |
| Fab_Metal  | Furnace_Oven_Kiln | 2 | 2 | 604,457 |
| Fab_Metal  | Furnace_Oven_Kiln | 2 | 3 | 659,408 |
| Fab_Metal  | AC                | 1 | 1 | 1,899   |
| Fab_Metal  | AC                | 1 | 2 | 2,089   |
| Fab_Metal  | AC                | 1 | 3 | 2,279   |
| Fab_Metal  | AC                | 2 | 1 | 1,519   |
| Fab_Metal  | AC                | 2 | 2 | 1,671   |
| Fab_Metal  | AC                | 2 | 3 | 1,823   |
| Fab_Metal  | Engine            | 1 | 1 | -       |
| Fab_Metal  | Engine            | 1 | 2 | -       |
| Fab_Metal  | Engine            | 1 | 3 | -       |
| Fab_Metal  | Engine            | 2 | 1 | -       |
| Fab_Metal  | Engine            | 2 | 2 | -       |
| Fab_Metal  | Engine            | 2 | 3 | -       |
| Fab_Metal  | Other             | 1 | 1 | -       |
| Fab_Metal  | Other             | 1 | 2 | -       |
| Fab_Metal  | Other             | 1 | 3 | -       |
| Fab_Metal  | Other             | 2 | 1 | -       |
| Fab_Metal  | Other             | 2 | 2 | -       |

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|           |                   |   |   |         |
|-----------|-------------------|---|---|---------|
| Fab_Metal | Other             | 2 | 3 | -       |
| Transport | Fire_Tube_Boiler  | 1 | 1 | 27,156  |
| Transport | Fire_Tube_Boiler  | 1 | 2 | 29,871  |
| Transport | Fire_Tube_Boiler  | 1 | 3 | 32,587  |
| Transport | Fire_Tube_Boiler  | 2 | 1 | 21,724  |
| Transport | Fire_Tube_Boiler  | 2 | 2 | 23,897  |
| Transport | Fire_Tube_Boiler  | 2 | 3 | 26,069  |
| Transport | Water_Tube_Boiler | 1 | 1 | 15,821  |
| Transport | Water_Tube_Boiler | 1 | 2 | 17,403  |
| Transport | Water_Tube_Boiler | 1 | 3 | 18,985  |
| Transport | Water_Tube_Boiler | 2 | 1 | 12,657  |
| Transport | Water_Tube_Boiler | 2 | 2 | 13,922  |
| Transport | Water_Tube_Boiler | 2 | 3 | 15,188  |
| Transport | Space_Heat        | 1 | 1 | 10,868  |
| Transport | Space_Heat        | 1 | 2 | 11,955  |
| Transport | Space_Heat        | 1 | 3 | 13,042  |
| Transport | Space_Heat        | 2 | 1 | 8,694   |
| Transport | Space_Heat        | 2 | 2 | 9,564   |
| Transport | Space_Heat        | 2 | 3 | 10,433  |
| Transport | Water_Heat        | 1 | 1 | 3,231   |
| Transport | Water_Heat        | 1 | 2 | 3,554   |
| Transport | Water_Heat        | 1 | 3 | 3,877   |
| Transport | Water_Heat        | 2 | 1 | 2,585   |
| Transport | Water_Heat        | 2 | 2 | 2,843   |
| Transport | Water_Heat        | 2 | 3 | 3,102   |
| Transport | Dryer             | 1 | 1 | 81,394  |
| Transport | Dryer             | 1 | 2 | 89,533  |
| Transport | Dryer             | 1 | 3 | 97,673  |
| Transport | Dryer             | 2 | 1 | 65,115  |
| Transport | Dryer             | 2 | 2 | 71,627  |
| Transport | Dryer             | 2 | 3 | 78,138  |
| Transport | Furnace_Oven_Kiln | 1 | 1 | 139,512 |
| Transport | Furnace_Oven_Kiln | 1 | 2 | 153,464 |
| Transport | Furnace_Oven_Kiln | 1 | 3 | 167,415 |
| Transport | Furnace_Oven_Kiln | 2 | 1 | 111,610 |
| Transport | Furnace_Oven_Kiln | 2 | 2 | 122,771 |
| Transport | Furnace_Oven_Kiln | 2 | 3 | 133,932 |
| Transport | AC                | 1 | 1 | 518     |
| Transport | AC                | 1 | 2 | 570     |
| Transport | AC                | 1 | 3 | 621     |
| Transport | AC                | 2 | 1 | 414     |
| Transport | AC                | 2 | 2 | 456     |
| Transport | AC                | 2 | 3 | 497     |
| Transport | Engine            | 1 | 1 | 2,575   |
| Transport | Engine            | 1 | 2 | 2,832   |
| Transport | Engine            | 1 | 3 | 3,090   |
| Transport | Engine            | 2 | 1 | 2,060   |
| Transport | Engine            | 2 | 2 | 2,266   |
| Transport | Engine            | 2 | 3 | 2,472   |
| Transport | Other             | 1 | 1 | -       |
| Transport | Other             | 1 | 2 | -       |
| Transport | Other             | 1 | 3 | -       |
| Transport | Other             | 2 | 1 | -       |
| Transport | Other             | 2 | 2 | -       |
| Transport | Other             | 2 | 3 | -       |
| Misc      | Fire_Tube_Boiler  | 1 | 1 | 50,324  |
| Misc      | Fire_Tube_Boiler  | 1 | 2 | 55,356  |
| Misc      | Fire_Tube_Boiler  | 1 | 3 | 60,388  |
| Misc      | Fire_Tube_Boiler  | 2 | 1 | 40,259  |
| Misc      | Fire_Tube_Boiler  | 2 | 2 | 44,285  |
| Misc      | Fire_Tube_Boiler  | 2 | 3 | 48,311  |
| Misc      | Water_Tube_Boiler | 1 | 1 | 35,392  |
| Misc      | Water_Tube_Boiler | 1 | 2 | 38,931  |
| Misc      | Water_Tube_Boiler | 1 | 3 | 42,470  |
| Misc      | Water_Tube_Boiler | 2 | 1 | 28,313  |
| Misc      | Water_Tube_Boiler | 2 | 2 | 31,145  |
| Misc      | Water_Tube_Boiler | 2 | 3 | 33,976  |
| Misc      | Space_Heat        | 1 | 1 | 7,731   |
| Misc      | Space_Heat        | 1 | 2 | 8,504   |
| Misc      | Space_Heat        | 1 | 3 | 9,277   |
| Misc      | Space_Heat        | 2 | 1 | 6,185   |

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|      |                   |   |   |         |
|------|-------------------|---|---|---------|
| Misc | Space_Heat        | 2 | 2 | 6,803   |
| Misc | Space_Heat        | 2 | 3 | 7,422   |
| Misc | Water_Heat        | 1 | 1 | 2,224   |
| Misc | Water_Heat        | 1 | 2 | 2,446   |
| Misc | Water_Heat        | 1 | 3 | 2,669   |
| Misc | Water_Heat        | 2 | 1 | 1,779   |
| Misc | Water_Heat        | 2 | 2 | 1,957   |
| Misc | Water_Heat        | 2 | 3 | 2,135   |
| Misc | Dryer             | 1 | 1 | 61,610  |
| Misc | Dryer             | 1 | 2 | 67,771  |
| Misc | Dryer             | 1 | 3 | 73,932  |
| Misc | Dryer             | 2 | 1 | 49,288  |
| Misc | Dryer             | 2 | 2 | 54,217  |
| Misc | Dryer             | 2 | 3 | 59,145  |
| Misc | Furnace_Oven_Kiln | 1 | 1 | 341,739 |
| Misc | Furnace_Oven_Kiln | 1 | 2 | 375,913 |
| Misc | Furnace_Oven_Kiln | 1 | 3 | 410,087 |
| Misc | Furnace_Oven_Kiln | 2 | 1 | 273,391 |
| Misc | Furnace_Oven_Kiln | 2 | 2 | 300,731 |
| Misc | Furnace_Oven_Kiln | 2 | 3 | 328,070 |
| Misc | AC                | 1 | 1 | 2,879   |
| Misc | AC                | 1 | 2 | 3,167   |
| Misc | AC                | 1 | 3 | 3,455   |
| Misc | AC                | 2 | 1 | 2,303   |
| Misc | AC                | 2 | 2 | 2,534   |
| Misc | AC                | 2 | 3 | 2,764   |
| Misc | Engine            | 1 | 1 | 5,988   |
| Misc | Engine            | 1 | 2 | 6,587   |
| Misc | Engine            | 1 | 3 | 7,186   |
| Misc | Engine            | 2 | 1 | 4,790   |
| Misc | Engine            | 2 | 2 | 5,270   |
| Misc | Engine            | 2 | 3 | 5,749   |
| Misc | Other             | 1 | 1 | -       |
| Misc | Other             | 1 | 2 | -       |
| Misc | Other             | 1 | 3 | -       |
| Misc | Other             | 2 | 1 | -       |
| Misc | Other             | 2 | 2 | -       |
| Misc | Other             | 2 | 3 | -       |

**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 Employment Forecast (in thousands)**

| <u>YEAR</u> | <u>Mining</u> | <u>Food</u> | <u>Textile</u> | <u>Wood_Paper</u> | <u>Chemical</u> | <u>Petroleum</u> | <u>Stone</u> | <u>Primary_Metal</u> | <u>Fabricated_Metal</u> | <u>Transportation</u> | <u>Miscellaneous</u> | <u>Total</u> |
|-------------|---------------|-------------|----------------|-------------------|-----------------|------------------|--------------|----------------------|-------------------------|-----------------------|----------------------|--------------|
| 2010        | 18.5683       | 111.8050    | 39.4492        | 19.1275           | 34.3767         | 5.9450           | 16.4883      | 7.5017               | 75.5650                 | 69.6750               | 332.9542             | 731.4517     |
| 2011        | 19.5250       | 113.1467    | 38.9367        | 19.2142           | 34.7250         | 5.8658           | 16.5492      | 7.7600               | 77.3500                 | 72.6942               | 342.1050             | 747.8725     |
| 2012        | 20.6767       | 113.9692    | 40.3192        | 21.2008           | 35.5333         | 5.7533           | 17.5675      | 7.9350               | 79.1358                 | 76.2550               | 350.3417             | 768.6858     |
| 2013        | 20.7600       | 114.7725    | 41.2942        | 22.9350           | 36.0108         | 5.6692           | 18.8467      | 7.9325               | 83.8758                 | 77.8817               | 359.0400             | 789.0125     |
| 2014        | 20.6492       | 115.0367    | 41.1883        | 23.5375           | 36.3700         | 5.5508           | 19.4083      | 8.1533               | 89.2350                 | 79.0492               | 358.8450             | 797.0250     |
| 2015        | 20.2125       | 114.9892    | 40.3717        | 23.9158           | 37.0175         | 5.3908           | 19.5858      | 8.3642               | 93.2183                 | 79.4800               | 361.1958             | 803.7433     |
| 2016        | 19.4325       | 114.7508    | 39.4550        | 24.0692           | 37.6158         | 5.2525           | 19.6642      | 8.4217               | 95.8667                 | 78.4942               | 361.4708             | 804.4925     |

**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
**Core Industrial Demand Forecast** (Mdth)  
 Average Temperature

| <b>Model Output</b> |                |               |              |                       |            |                       |              |
|---------------------|----------------|---------------|--------------|-----------------------|------------|-----------------------|--------------|
|                     | <u>G10-Ind</u> | <u>EE/DSM</u> | <u>AB970</u> | <u>City of Vernon</u> | <u>AMI</u> | <u>C2NC Migration</u> | <u>Final</u> |
| 2010                | 22620.4        | 0.0           | 0.0          | 0.00                  | 0.00       | 0.00                  | 22620.4      |
| 2011                | 23022.1        | 325.7         | 0.0          | 0.00                  | 0.00       | 407.33                | 22289.0      |
| 2012                | 23090.0        | 674.4         | 31.8         | 68.25                 | 0.00       | 801.41                | 21577.8      |
| 2013                | 23273.0        | 1023.1        | 47.7         | 136.50                | 2.07       | 1193.13               | 20965.9      |
| 2014                | 23361.0        | 1371.8        | 63.6         | 204.76                | 5.97       | 1582.50               | 20259.6      |
| 2015                | 23146.3        | 1720.5        | 63.6         | 273.01                | 9.77       | 1969.53               | 19237.2      |
| 2016                | 23099.5        | 2069.2        | 63.6         | 273.01                | 13.60      | 1969.53               | 18837.8      |



**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
**Core Industrial Demand Forecast** (Mdth)  
 Cold Temperature

| <u>YEAR</u> | <u>Model Output</u> |               |              |                       |            |                       |         | <u>Final</u> |
|-------------|---------------------|---------------|--------------|-----------------------|------------|-----------------------|---------|--------------|
|             | <u>G10-Ind</u>      | <u>EE/DSM</u> | <u>AB970</u> | <u>City of Vernon</u> | <u>AMI</u> | <u>C2NC Migration</u> |         |              |
| 2010        | 23097.5             | 0.0           | 0.00         | 0.00                  | 0.00       | 0.00                  | 23097.5 |              |
| 2011        | 23507.6             | 332.6         | 0.00         | 0.00                  | 0.00       | 407.33                | 22767.7 |              |
| 2012        | 23576.9             | 688.6         | 31.80        | 68.25                 | 0.00       | 801.41                | 22050.5 |              |
| 2013        | 23763.8             | 1044.7        | 47.70        | 136.50                | 2.11       | 1193.13               | 21435.1 |              |
| 2014        | 23853.7             | 1400.7        | 63.60        | 204.76                | 6.09       | 1582.50               | 20723.2 |              |
| 2015        | 23634.5             | 1756.7        | 63.60        | 273.01                | 9.97       | 1969.53               | 19688.8 |              |
| 2016        | 23586.6             | 2112.8        | 63.60        | 273.01                | 13.88      | 1969.53               | 19281.0 |              |

**Southern California Gas Company  
 2013 TCAP - Industrial G10  
 Core Industrial Demand Forecast (Mdth)  
 Hot Temperature**

| <u>YEAR</u> | <u>Model Output</u> |               |              |                       |            |                       | <u>Final</u> |
|-------------|---------------------|---------------|--------------|-----------------------|------------|-----------------------|--------------|
|             | <u>G10-Ind</u>      | <u>EE/DSM</u> | <u>AB970</u> | <u>City of Vernon</u> | <u>AMI</u> | <u>C2NC Migration</u> |              |
| 2010        | 22143.4             | 0.0           | 0.00         | 0.00                  | 0.00       | 0.00                  | 22143.4      |
| 2011        | 22536.5             | 318.8         | 0.00         | 0.00                  | 0.00       | 407.33                | 21810.4      |
| 2012        | 22603.1             | 660.2         | 31.80        | 68.25                 | 0.00       | 801.41                | 21105.0      |
| 2013        | 22782.2             | 1001.5        | 47.70        | 136.50                | 2.03       | 1193.13               | 20496.7      |
| 2014        | 22868.4             | 1342.8        | 63.60        | 204.76                | 5.85       | 1582.50               | 19796.0      |
| 2015        | 22658.2             | 1684.2        | 63.60        | 273.01                | 9.57       | 1969.53               | 18785.5      |
| 2016        | 22612.3             | 2025.5        | 63.60        | 273.01                | 13.32      | 1969.53               | 18394.5      |

**Southern California Gas Company**  
**2013 TCAP - Industrial G10**  
**Core Industrial Demand Forecast (Mdth)**  
**Base Temperature**

| <u>YEAR</u> | <u>Model Output</u> |               |              |                       |            |                       | <u>Final</u> |
|-------------|---------------------|---------------|--------------|-----------------------|------------|-----------------------|--------------|
|             | <u>G10-Ind</u>      | <u>EE/DSM</u> | <u>AB970</u> | <u>City of Vernon</u> | <u>AMI</u> | <u>C2NC Migration</u> |              |
| 2010        | 20286.1             | 0.0           | 0.00         | 0.00                  | 0.00       | 0.00                  | 20286.1      |
| 2011        | 20646.3             | 292.1         | 0.00         | 0.00                  | 0.00       | 407.33                | 19946.9      |
| 2012        | 20707.2             | 604.8         | 31.80        | 68.25                 | 0.00       | 801.41                | 19264.6      |
| 2013        | 20871.3             | 917.5         | 47.70        | 136.50                | 1.88       | 1193.13               | 18670.0      |
| 2014        | 20950.3             | 1230.2        | 63.60        | 204.76                | 5.38       | 1582.50               | 17991.1      |
| 2015        | 20757.8             | 1542.9        | 63.60        | 273.01                | 8.79       | 1969.53               | 17027.1      |
| 2016        | 20715.7             | 1855.6        | 63.60        | 273.01                | 12.23      | 1969.53               | 16668.9      |

# Triennial Cost Allocation Proceeding

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NATURAL GAS VEHICLES

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#REF!

**2. Description - Summary of SDG&E forecasted annual volumes and stations from 2011-2016**

**3. Data**

| Table 1 - SDG&E CNG Station and Volume Forecasts |                        |                           |          |                         |          |  |              |
|--|------------------------|---------------------------|----------|-------------------------|----------|--|--------------|
| Year   | Volumetric Growth Rate | Uncompressed <sup>1</sup> |          | Compressed <sup>2</sup> |          | Aggregated Transportation <sup>3</sup> | Total Volume |
|  |                        | stations                  | MDtherms | stations                | MDtherms | MDtherms                               | Mdtherms     |
| 2010   | -                      | 22                        | 290      | 6                       | 20       | 720                                    | 1,031        |
| 2011   | 3%                     | 24                        | 299      | 6                       | 21       | 742                                    | 1,062        |
| 2012   | 3%                     | 24                        | 308      | 6                       | 21       | 764                                    | 1,093        |
| 2013   | 3%                     | 25                        | 317      | 6                       | 22       | 787                                    | 1,126        |
| 2014   | 3%                     | 25                        | 327      | 7                       | 23       | 810                                    | 1,160        |
| 2015   | 3%                     | 25                        | 337      | 7                       | 23       | 835                                    | 1,195        |
| 2016   | 3%                     | 25                        | 347      | 7                       | 24       | 860                                    | 1,231        |

<sup>1</sup> Uncompressed volumes are total throughput deliveries to non-utility owned CNG stations. Station growth assumes constant number of stations added each year based on expected 2011 CNG station construction.

<sup>2</sup> Compressed volumes are total throughput deliveries to utility owned CNG stations.

<sup>3</sup> Aggregated transportation are metered deliveries to CNG stations which arrange their own gas transportation.

**4. Source - Workpaper NGV-4**

#REF!

2. Description - SDG&E throughput and station forecast summary 2010 through 2016

3. Data

| Years         | Total Volume | Transit Customer Volume | Total Volume Less Transit Customer Volume |                 | Yearly growth | Average growth 2008 through 2011 |
|---------------|--------------|-------------------------|---|-----------------|---------------|----------------------------------|
|               |              |                         | Total                                     | Volume Increase |               |                                  |
|               | MM CCF       | MM CCF                  | MM CCF                                    | MM CCF          | %             | %                                |
| 2011 prorated | 11,318       | 9,39                    | 1,928                                     | 1,02            | 9.94          | 3.03                             |
| 2010          | 10,265       | 9,357                   | 0,908                                     | 0,188           | 1.59          |                                  |
| 2009          | 11,797       | 11,077                  | 0,72                                      | -0,258          | -2.45         |                                  |
| 2008          | 10,552       | 9,574                   | 0,978                                     | n/a             |               |                                  |

| Year   | January | February | March | April | May  | June | July | August | September | October | November | December | Annual |
|--|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|--------|
| Compressed Volumes (M Decatherms)                |         |          |       |       |      |      |      |        |           |         |          |          |        |
| 2010   | 1.29    | 1.30     | 1.72  | 1.36  | 5.21 | 1.31 | 1.21 | 1.34   | 1.42      | 1.42    | 1.31     | 1.24     | 20.4   |
| 2011   | 1.33    | 1.34     | 1.77  | 1.40  | 5.37 | 1.35 | 1.25 | 1.38   | 1.46      | 1.46    | 1.35     | 1.28     | 20.7   |
| 2012   | 1.37    | 1.38     | 1.82  | 1.44  | 5.53 | 1.39 | 1.28 | 1.42   | 1.51      | 1.51    | 1.39     | 1.32     | 21.4   |
| 2013   | 1.41    | 1.42     | 1.88  | 1.49  | 5.69 | 1.43 | 1.32 | 1.46   | 1.55      | 1.55    | 1.43     | 1.35     | 22.0   |
| 2014   | 1.45    | 1.46     | 1.94  | 1.53  | 5.86 | 1.47 | 1.36 | 1.51   | 1.60      | 1.60    | 1.47     | 1.40     | 22.7   |
| 2015   | 1.50    | 1.51     | 1.99  | 1.58  | 6.04 | 1.52 | 1.40 | 1.55   | 1.65      | 1.65    | 1.52     | 1.44     | 23.3   |
| 2016   | 1.54    | 1.55     | 2.05  | 1.62  | 6.22 | 1.56 | 1.44 | 1.60   | 1.70      | 1.70    | 1.56     | 1.48     | 24.0   |
| Uncompressed Volumes (M Decatherms)              |         |          |       |       |      |      |      |        |           |         |          |          |        |
| 2010   | 23.27   | 24.39    | 23.24 | 25    | 24   | 24   | 22   | 22     | 26        | 25      | 26       | 25       | 290    |
| 2011   | 23.97   | 25.12    | 23.93 | 26    | 25   | 25   | 23   | 23     | 27        | 26      | 27       | 26       | 299    |
| 2012   | 24.69   | 25.87    | 24.65 | 26    | 26   | 25   | 23   | 23     | 27        | 27      | 28       | 27       | 308    |
| 2013   | 25.43   | 26.65    | 25.39 | 27    | 27   | 26   | 24   | 24     | 28        | 27      | 29       | 28       | 317    |
| 2014   | 26.19   | 27.45    | 26.15 | 28    | 27   | 27   | 25   | 25     | 29        | 28      | 29       | 28       | 327    |
| 2015   | 26.97   | 28.27    | 26.94 | 29    | 28   | 28   | 25   | 26     | 30        | 29      | 30       | 29       | 337    |
| 2016   | 27.78   | 29.12    | 27.75 | 30    | 29   | 29   | 26   | 26     | 31        | 30      | 31       | 30       | 347    |
| Aggregated Transportation Volumes (M Decatherms) |         |          |       |       |      |      |      |        |           |         |          |          |        |
| 2010   | 59.97   | 62.22    | 55.42 | 64    | 53   | 60   | 59   | 59     | 63        | 60      | 61       | 65       | 720    |
| 2011   | 61.77   | 64.09    | 57.08 | 65    | 54   | 62   | 61   | 61     | 65        | 62      | 63       | 67       | 742    |
| 2012   | 63.62   | 66.01    | 58.79 | 67    | 56   | 64   | 63   | 62     | 67        | 64      | 64       | 69       | 764    |
| 2013   | 65.53   | 67.99    | 60.56 | 69    | 58   | 66   | 65   | 64     | 69        | 65      | 66       | 71       | 787    |
| 2014   | 67.50   | 70.03    | 62.38 | 72    | 59   | 68   | 67   | 66     | 71        | 67      | 68       | 73       | 810    |
| 2015   | 69.52   | 72.13    | 64.25 | 74    | 61   | 70   | 69   | 68     | 73        | 69      | 70       | 75       | 835    |
| 2016   | 71.61   | 74.30    | 66.17 | 76    | 63   | 72   | 71   | 70     | 75        | 72      | 73       | 77       | 860    |

4. Source - Monthly throughput provided by Downie Beckett (Pricing Analysis, Strategic Analysis Planning Pricing group) by email on July 21, 2011.

# Triennial Cost Allocation Proceeding

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ENERGY EFFICIENCY

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| SDG&E                              | Reported<br>2006<br>Therms | Reported<br>2007<br>Therms | Reported<br>2008<br>Therms | Reported<br>2009<br>Therms | Reported<br>2010<br>Therms | Forecast<br>2011<br>Therms | Forecast<br>2012<br>Therms | Forecast<br>2013 | Forecast<br>2014 | Forecast<br>2015 | Forecast<br>2016 |
|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------|------------------|------------------|------------------|
| <b>SDG&amp;E EE Programs TOTAL</b> | 1,652,856                  | 3,141,304                  | 3,146,590                  | 4,764,177                  | 628,756                    | 3,941,066                  | 3,727,488                  |                  |                  |                  |                  |
| <b>PUC Goal</b>                    | 2,700,000                  | 3,100,000                  | 3,700,000                  | 3,700,000                  | 3,500,000                  | 3,800,000                  | 4,100,000                  | 4,100,000        | 4,100,000        | 4,100,000        | 4,100,000        |
| <b>Difference</b>                  | (1,047,144)                | 41,304                     | (553,410)                  | 1,064,177                  | (2,871,244)                | 141,066                    | (372,512)                  |                  |                  |                  |                  |

| SDGE                      | 2006<br>therms   | 2007<br>therms   | 2008<br>therms   | 2009<br>therms   | 2010<br>therms | 2011<br>therms   | 2012<br>therms   |
|---------------------------|------------------|------------------|------------------|------------------|----------------|------------------|------------------|
| Core Residential          | 505,394          | 891,146          | 906,495          | 1,127,509        | (793,637)      | 986,067          | 966,779          |
| Core Commercial           | 1,011,317        | 1,983,180        | 1,974,310        | 3,205,182        | 1,253,628      | 2,646,342        | 2,471,796        |
| Core Industrial           | 20,715           | 40,621           | 40,439           | 65,651           | 25,678         | 60,755           | 52,644           |
| NonCore Commercial        | 11,543           | 22,636           | 22,535           | 36,584           | 14,309         | 55,162           | 47,160           |
| NonCore Industrial retail | 103,887          | 203,722          | 202,811          | 329,252          | 128,779        | 192,739          | 189,110          |
| <b>Total</b>              | <b>1,652,856</b> | <b>3,141,304</b> | <b>3,146,590</b> | <b>4,764,177</b> | <b>628,756</b> | <b>3,941,066</b> | <b>3,727,488</b> |

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

| ANNUAL NET SAVINGS | 2006<br>mdth | 2007<br>mdth | 2008<br>mdth | 2009<br>mdth | 2010<br>mdth | 2011<br>mdth | 2012<br>mdth | 2013<br>mdth | 2014<br>mdth | 2015<br>mdth | 2016<br>mdth |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Residential        | 51           | 89           | 91           | 113          | (79)         | 95           | 106          | 106          | 106          | 106          | 106          |
| Core Commercial    | 101          | 198          | 197          | 321          | 125          | 255          | 272          | 272          | 272          | 272          | 272          |
| Core Industrial    | 2            | 4            | 4            | 7            | 3            | 6            | 6            | 6            | 6            | 6            | 6            |
| Noncore Commercial | 1            | 2            | 2            | 4            | 1            | 5            | 5            | 5            | 5            | 5            | 5            |
| Noncore Industrial | 10           | 20           | 20           | 33           | 13           | 19           | 21           | 21           | 21           | 21           | 21           |
| <b>Total</b>       | <b>165</b>   | <b>314</b>   | <b>315</b>   | <b>476</b>   | <b>63</b>    | <b>380</b>   | <b>410</b>   | <b>410</b>   | <b>410</b>   | <b>410</b>   | <b>410</b>   |

| Cumulative Savings SDGE   | 2011<br>mdth | 2012<br>mdth | 2013<br>mdth | 2014<br>mdth | 2015<br>mdth | 2016<br>mdth |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Residential               | 95           | 201          | 308          | 414          | 520          | 627          |
| Core Commercial           | 255          | 527          | 799          | 1,071        | 1,343        | 1,615        |
| Core Industrial           | 6            | 12           | 17           | 23           | 29           | 35           |
| Noncore Commercial        | 5            | 11           | 16           | 21           | 26           | 31           |
| Noncore Industrial        | 19           | 39           | 60           | 81           | 102          | 123          |
| <b>Total Load Impacts</b> | <b>380</b>   | <b>790</b>   | <b>1,200</b> | <b>1,610</b> | <b>2,020</b> | <b>2,430</b> |

Cumulative Savings MMCF

MMCF factor: 1.019

| SDGE                         | 2011       | 2012       | 2013         | 2014         | 2015         | 2016         |
|------------------------------|------------|------------|--------------|--------------|--------------|--------------|
| Residential                  | 93         | 198        | 302          | 406          | 511          | 615          |
| Core Commercial              | 250        | 517        | 784          | 1,051        | 1,318        | 1,584        |
| Core Industrial              | 6          | 11         | 17           | 23           | 28           | 34           |
| Noncore Commercial           | 5          | 10         | 15           | 20           | 26           | 31           |
| Noncore Industrial           | 18         | 39         | 59           | 79           | 100          | 120          |
| <b>Total Cumulative Load</b> | <b>373</b> | <b>775</b> | <b>1,178</b> | <b>1,580</b> | <b>1,982</b> | <b>2,385</b> |

Forecast Year ==>>>>

1 2 3 4 5 6

**NOTES:**

2010 Reported data is preliminary pending CPUC review.

2010 Reported data includes electric interactive effects which results in negative Therm savings for the Residential sector.

2011-2012 forecast incorporates electric savings interactive effects which results in net negative Therm savings for the Residential sector. (

We did not incorporate gas interactive effects in the 2010-2012 EE Forecast that we submitted to the CPUC in November 2009.

The interactive effects issue arose during the implementation of the 2010-2012 cycle and applies to the reporting of the actual accomplishments we report each year.



# Triennial Cost Allocation Proceeding

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SUPPORTING DATA

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# Triennial Cost Allocation Proceeding

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Service Area Economic Forecast

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## SAN DIEGO GAS & ELECTRIC COMPANY SERVICE AREA ECONOMIC FORECAST

(forecast based on Global Insight's March 2011 Regional Forecasts)

|   | 2005    | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>EMPLOYMENT (1000's)</b>                      |         |         |         |         |         |         |         |         |         |         |         |         |
| <b>Total</b>                                    | 1,292.8 | 1,312.5 | 1,319.7 | 1,309.3 | 1,240.9 | 1,234.8 | 1,254.2 | 1,276.8 | 1,304.4 | 1,333.0 | 1,359.1 | 1,382.8 |
| I: Industrial (all manufacturing + mining)      | 104.9   | 104.4   | 102.9   | 103.2   | 95.7    | 92.8    | 94.1    | 96.6    | 99.5    | 100.4   | 101.6   | 102.1   |
| C1: Office (Financial+Bus. & Professional Svcs) | 298.5   | 302.9   | 303.5   | 297.5   | 276.5   | 277.8   | 289.0   | 296.1   | 305.7   | 319.8   | 331.0   | 340.1   |
| C2: Restaurants                                 | 97.8    | 102.3   | 105.5   | 105.9   | 100.3   | 100.3   | 101.9   | 103.3   | 104.4   | 105.2   | 105.6   | 105.9   |
| C3: Retail Trade                                | 147.4   | 148.3   | 148.1   | 142.0   | 131.6   | 130.1   | 129.7   | 131.7   | 133.1   | 134.1   | 134.6   | 134.8   |
| C4: Laundry & other Personal Services           | 15.0    | 15.2    | 15.3    | 15.7    | 15.2    | 15.4    | 15.4    | 15.5    | 15.5    | 15.6    | 15.6    | 15.7    |
| C5: Wholesale Trade & Warehouses                | 46.6    | 48.1    | 48.6    | 47.7    | 43.2    | 41.8    | 41.9    | 42.5    | 43.4    | 44.3    | 45.3    | 46.3    |
| C6: Primary & Secondary Schools                 | 87.0    | 87.9    | 90.3    | 90.7    | 88.3    | 90.1    | 92.0    | 94.0    | 95.4    | 96.8    | 98.3    | 100.5   |
| C7: Colleges (including other adult education)  | 32.0    | 32.6    | 33.4    | 36.1    | 38.9    | 39.7    | 40.5    | 41.4    | 42.0    | 42.6    | 43.2    | 44.2    |
| C8: Health Services                             | 101.4   | 103.8   | 107.6   | 112.9   | 117.5   | 120.0   | 122.5   | 125.1   | 126.9   | 128.8   | 130.8   | 133.8   |
| C9: Accommodation                               | 29.2    | 30.5    | 31.9    | 32.7    | 30.2    | 30.2    | 30.7    | 31.1    | 31.4    | 31.7    | 31.8    | 31.9    |
| C10: Misc. (all other commercial employment)    | 56.4    | 56.8    | 57.5    | 58.0    | 55.8    | 56.4    | 56.7    | 56.8    | 57.0    | 57.1    | 57.2    | 57.7    |
| C11: Government (non-education)                 | 117.1   | 118.8   | 120.6   | 122.8   | 124.1   | 125.1   | 124.0   | 122.9   | 123.3   | 124.2   | 124.7   | 125.5   |
| C12: Transportation, Information, and Utilities | 57.9    | 57.3    | 57.0    | 57.5    | 52.9    | 50.1    | 50.7    | 53.3    | 54.6    | 55.4    | 57.0    | 58.2    |
| C13: Construction                               | 90.8    | 92.7    | 87.0    | 76.1    | 61.1    | 55.6    | 55.4    | 57.0    | 62.4    | 67.3    | 72.5    | 76.3    |
| C14: Agriculture                                | 10.7    | 10.9    | 10.9    | 10.5    | 9.5     | 9.5     | 9.6     | 9.6     | 9.7     | 9.7     | 9.8     | 9.8     |

### OTHER

|  |      |      |      |      |       |      |      |      |      |      |      |      |
|--|------|------|------|------|-------|------|------|------|------|------|------|------|
| Southern California Area Consumer Inflation* | 4.5% | 4.3% | 3.3% | 3.5% | -0.8% | 1.2% | 1.7% | 2.0% | 2.3% | 2.4% | 2.3% | 2.3% |
|--|------|------|------|------|-------|------|------|------|------|------|------|------|

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