# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX A -1 

ILLUSTRATIVE RATES A SSUMING 2.1\% GROWTH IN REVENUE REQUIREMENT AND 50\% BASELINE QUANTITIES

## Appendix A-1: Illustrative Rates Assuming 2.1\% Growth in Revenue Requirement and 50\% Baseline Quantities



|  | E-7 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-7 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Summer Peak |  |  |  |  |  | Summer Peak |  |  |  |  |  |
|  | Tier 1 | \$0.343 | \$0.284 |  |  |  | Tier 1 | \$0.281 | \$0.234 |  |  |  |
|  | Tier 2 | \$0.367 | \$0.339 |  |  |  | Tier 2 | \$0.298 | \$0.255 |  |  |  |
|  | Tier 3 | \$0.446 | \$0.339 |  |  |  | Tier 3 | \$0.425 | \$0.255 |  |  |  |
|  | Tier 4 | \$0.506 | \$0.441 |  |  |  | Tier 4 | \$0.425 | \$0.285 |  |  |  |
|  | Summer Off-Peak |  |  |  |  |  | Summer Off-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.095 | \$0.138 |  |  |  | Tier 1 | \$0.068 | \$0.088 |  |  |  |
|  | Tier 2 | \$0.119 | \$0.193 |  |  |  | Tier 2 | \$0.085 | \$0.109 |  |  |  |
|  | Tier 3 | \$0.198 | \$0.193 |  |  |  | Tier 3 | \$0.115 | \$0.109 |  |  |  |
|  | Tier 4 | \$0.258 | \$0.295 |  |  |  | Tier 4 | \$0.115 | \$0.139 |  |  |  |
|  | Winter Peak |  |  | PG\&E Pr | ses Closi | Schedule | Winter Part-Peak |  |  | PG\&E Pr | ses Closi | chedule |
|  | Tier 1 | \$0.128 | \$0.136 |  | in 2016 |  | Tier 1 | \$0.097 | \$0.086 |  | in 2016 |  |
|  | Tier 2 | \$0.152 | \$0.191 |  |  |  | Tier 2 | \$0.114 | \$0.107 |  |  |  |
|  | Tier 3 | \$0.231 | \$0.191 |  |  |  | Tier 3 | \$0.157 | \$0.107 |  |  |  |
|  | Tier 4 | \$0.291 | \$0.293 |  |  |  | Tier 4 | \$0.157 | \$0.137 |  |  |  |
|  | Winter Off-Peak |  |  |  |  |  | Winter Off-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.098 | \$0.124 |  |  |  | Tier 1 | \$0.071 | \$0.074 |  |  |  |
| $\xrightarrow{\square}$ | Tier 2 | \$0.122 | \$0.180 |  |  |  | Tier 2 | \$0.088 | \$0.095 |  |  |  |
| $\stackrel{\rightharpoonup}{1}$ | Tier 3 | \$0.201 | \$0.180 |  |  |  | Tier 3 | \$0.119 | \$0.095 |  |  |  |
| N | Tier 4 | \$0.261 | \$0.281 |  |  |  | Tier 4 | \$0.119 | \$0.125 |  |  |  |
|  | Customer Charge | \$0.00 | \$5.00 |  |  |  | Customer Charge | \$0.00 | \$2.50 |  |  |  |
|  | E-8 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-8 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
|  | Summer |  |  |  |  |  | Summer |  |  |  |  |  |
|  | Tier 1 | \$0.152 | \$0.161 |  |  |  | Tier 1 | \$0.094 | \$0.117 |  |  |  |
|  | Tier 2 | \$0.156 | \$0.216 |  |  |  | Tier 2 | \$0.095 | \$0.138 |  |  |  |
|  | Tier 3 | \$0.235 | \$0.216 |  |  |  | Tier 3 | \$0.153 | \$0.138 |  |  |  |
|  | Tier 4 | \$0.295 | \$0.318 |  |  |  | Tier 4 | \$0.153 | \$0.168 |  |  |  |
|  |  |  |  | PG\&E Proposes Closing Schedule in 2016 |  |  | Winter |  |  | PG\&E Proposes Closing Schedule |  |  |
|  | Tier 1 | \$0.101 | \$0.126 |  |  |  | Tier 1 | \$0.059 | \$0.076 | in 2016 |  |  |
|  | Tier 2 | \$0.106 | \$0.181 |  |  |  | Tier 2 | \$0.060 | \$0.097 |  |  |  |
|  | Tier 3 | \$0.184 | \$0.181 |  |  |  | Tier 3 | \$0.102 | \$0.097 |  |  |  |
|  | Tier 4 | \$0.244 | \$0.283 |  |  |  | Tier 4 | \$0.102$\$ 10.02$ | \$0.127 |  |  |  |
|  | Customer Charge | \$12.53 | \$12.53 |  |  |  | Customer Charge |  | \$10.020 |  |  |  |


| E-TOU Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | E-tou Care Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summer |  |  |  |  |  | Summer |  |  |  |  |  |
| On-Peak |  |  | 0.314 | 0.316 | 0.321 | On-Peak |  |  | 0.204 | 0.205 | 0.209 |
| Off-Peak |  |  | 0.177 | 0.179 | 0.184 | Off-Peak |  |  | 0.115 | 0.117 | 0.120 |
| Winter |  |  |  |  |  | Winter |  |  |  |  |  |
| On-Peak |  |  | 0.178 | 0.180 | 0.185 | On-Peak |  |  | 0.116 | 0.117 | 0.120 |
| Off-Peak |  |  | 0.164 | 0.166 | 0.171 | Off-Peak |  |  | 0.106 | 0.108 | 0.111 |
| Customer Charge |  |  | \$10.00 | \$10.21 | \$10.42 | Customer Charge |  |  | \$5.00 | \$5.11 | \$5.21 |

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX A -2 

## CARE EFFECTIVE DISCO UNT ASSUMING 2.1\% GR OWTH IN REVENUE REQUIREMENT AND 50\% BASELINE QUA NTITIES

| No of Customers | Non-CARE | Non-CARE Pct of Customers | CARE | CARE Pct of Customers | Total | Total Pct of Customers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | 1,213,962 | 36\% | 551,029 | 43\% | 1,764,992 | 38\% |
| Tier 2 | 530,917 | 16\% | 237,328 | 19\% | 768,244 | 17\% |
| Tier 3 | 1,000,480 | 30\% | 345,568 | 27\% | 1,346,047 | 29\% |
| Tier 4 | 608,190 | 18\% | 134,106 | 11\% | 742,297 | 16\% |
| Total | 3,353,549 | 100\% | 1,268,031 | 100\% | 4,621,580 | 100\% |
| Customer Months | 41,554,094 |  | 14,119,521 |  | 55,673,615 |  |


| Billing Determinants (kWh) with $50 \%$ Baseline Quantity | Non-CARE | Non-CARE Pct of Sales | CARE | CARE <br> Pct of Sales | Total | Total Pct of Sales |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | 12,405,329,836 | 53\% | 4,502,204,186 | 59\% | 16,907,534,022 | 54\% |
| Tier 2 | 2,529,969,079 | 11\% | 843,648,428 | 11\% | 3,373,617,506 | 11\% |
| Tier 3 | 3,997,009,265 | 17\% | 1,192,663,424 | 16\% | 5,189,672,689 | 17\% |
| Tier 4 | 4,628,745,597 | 20\% | 1,057,709,208 | 14\% | 5,686,454,805 | 18\% |
| Total | 23,561,053,776 | 100\% | 7,596,225,247 | 100\% | 31,157,279,023 | 100\% |


| Scenario 32 | Assumin g 21\% Growth in Revenue Requirment and $50 \%$ Baseline Quantite |  |  |  | S |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Jan 2016 | Jan 2017 | Jan 2018 |
| Non-CARE |  |  |  |  |  |
| Minimum Bill Amount (\$/mo) | \$4.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Basic Service Fee (\$/mo) | \$0.00 | \$5.00 | \$10.0¢ | \$10.2 | \$10.4 |
| T-1 Rate (\$/kWh) | \$0.14707 | \$0.14707 | \$0.14707 | \$0.16178 | \$0.17672 |
| T-2 Rate (\$/kWh) | \$0.17028 | \$0.20258 | \$0.20258 | \$0.20241 | \$0.21206 |
| T-2' Rate (\$/kWh) | \$0.24918 | \$0.20258 | \$0.20258 | \$0.20241 | \$0.21206 |
| T-3 Rate (\$/kWh) | \$0.30918 | \$0.30418 | \$0.27428 | \$0.24504 | \$0.21206 |
| CARE |  |  |  |  |  |
| Minimum Bill Amount | \$3.60 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Basic Service Fee (\$/mo) | \$0.00 | \$2.50 | \$5.00 | \$5.11 | \$5.21 |
| T-1 Rate (\$/kWh) | \$0.09072 | \$0.09700 | \$0.10300 | \$0.11200 | \$0.12106 |
| T-2 Rate (\$/kWh) | \$0.10433 | \$0.11800 | \$0.12400 | \$0.13600 | \$0.14527 |
| T-2' Rate (\$/kWh) | \$0.14802 | \$0.11800 | \$0.12400 | \$0.13600 | \$0.14527 |
| T-3 Rate (\$/kWh) | \$0.14802 | \$0.14802 | \$0.14802 | \$0.14802 | \$0.14527 |
| CARE Discount Estimates |  |  |  |  |  |
| CARE Revenue Collection at Non-CARE Rates | 1,430,006,029 | 1,466,986,819 | 1,505,958,921 | 1,543,877,854 | 1,598,873,044 |
| Total CARE Revenue Collection | 829,557,961 | 868,859,525 | 943,389,425 | 1,009,827,555 | 1,068,067,985 |
| CARE Discount (\$) | 600,448,068 | 598,127,294 | 562,569,496 | 534,050,299 | 530,805,059 |
| Effective CARE Discoun t | 44\% | 43\% | 39\% | 36\% | 35\% |

## PACIFIC GAS AND ELECTRIC COMPANY APPENDIX A-3

YEAR-TO-YEAR BILL COMPARISON USING PG\&E'S
STANDARD FORMAT: AT ILLUSTRATIVE RATES ASSUMING
2.1\% GROWTH IN REVENUE REQUIREMENT AND 50\%

BASELINE QUANTITIES

Total Annual Bill Sunmary by Rate Schedules
Comparison Between 2014 Summer with of RRQ Current 2.5 Rates
AND 2015 Summer proposed 3.2 Rates using $50 \% \mathrm{BQ}$
Data From yearly file (JAN 2011 - Dec 2011)

AND 2015 Summer proposed 3.2 Rates using 504 BQ

## FOR ANNUAL

Data From Yeariy file (JAN 2011 - Dec 2011)
RES full service


AND 2015 Summer proposed 3.2 Rates using $50 \% \mathrm{BQ}$

## FOR ANNUAL

Data From Yearly File(JAN 2011 - Dec 2011)
RES full service

FOR ANNUAL

Data From Yearly file (JAN 2011 - Dec 2011)
RES full service


AND 2015 Sumer proposed 3.2 Rates using $50 \%$ BQ

## FOR ANNUAL

Data From Yearly File (Jan 2011 - Dec 2011)
RES full service

|  | $\begin{array}{cc} \$ \\ \mathrm{PCT} & \mathrm{D} \end{array}$ | MONTHLY \$ <br> difference | BELOW -20\% DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 z$ <br> decrease | $-5--0.01 \%$ <br> DBCREASE | $-0.01-07$ DECREASE | $0-0.01 \%$ <br> increase | $0.01-5 \%$ <br> increase | $\begin{gathered} 5-10 \% \\ \text { INCREASE } \end{gathered}$ | $10-20 \%$ <br> increase | ABOVE 208 increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$-3.02 | 0 | $2(0.58)$ | 1(0.3\%) | 12(3.2\%) | 0 | c | 0 | 0 | 0 | 0 |
|  | 8\% | \$-1.87 | 0 | 0 | 1 (0.38) | 15 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | \$-0.79 | 0 | 0 | 0 | 14 (3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 16\% | \$-0.06 | 0 | 0 | 0 | 15 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 20\% | \$0.37 | 0 | 0 | 0 | 1(0.38) | 0 | 0 | 15(4.08) | 0 | 0 | 0 |
|  | 24\% | \$0.71 | 0 | 0 | 0 | 0 | 0 | 0 | 16(4.2\%) | 0 | 0 | 0 |
|  | 28\% | \$0.96 | 0 | 0 | 0 | 0 | 0 | 0 | 14 (3.78) | 0 | 1(0.36) | 0 |
|  | 32\% | \$1.42 | 0 | 0 | 0 | 0 | 0 | 0 | 15 (4.08) | 0 | 0 | 0 |
|  | 36\% | \$1.74 | 0 | 0 | 0 | 0 | 0 | 0 | 14 (3.78) | 0 | 1(0.3年) | 0 |
|  | 408 | \$1.93 | 0 | 0 | 0 | 0 | 0 | 0 | 12(3.2\%) | $2(0.58)$ | 0 | 1 (0.38) |
|  | 44\% | \$2.37 | 0 | 0 | 0 | 0 | 0 | 0 | 10 (2.68) | 3 (0.8\%) | 1(0.38) | 1 (0.36) |
|  | $48 \%$ | \$2.76 | 0 | 0 | 0 | 0 | 0 | 0 | 7 (1.88) | 5 (1.38) | 3 (0.8\%) | 0 |
|  | 52\% | \$2.99 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.58)$ | 6(1.68) | 5(1.38) | $3(0.88)$ |
|  | 56\% | \$3.27 | 0 | 0 | 0 | 0 | 0 | 0 | 6(1.6\%) | 1(0.38) | 3 (0.8\%) | 4 (1.18) |
|  | 60\% | \$3.55 | 0 | 0 | 0 | 0 | 0 | 0 | $9(2.48)$ | 1 (0.38) | 4(1.18) | $2(0.58)$ |
| $\perp$ | 64\% | \$3.79 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.38) | 5(1.38) | 3 (0.8番) | 7(1.88) |
| $\omega$ | 68\% | \$4.16 | 0 | 0 | 0 | 0 | 0 | 0 | 5(1.3\%) | 2 (0.5\%) | 6 (1.68) | 1(0.3\%) |
| \% | 72\% | \$4.54 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.38)$ | 0 | 14(3.7*) | 0 |
| $\cdots$ | 76\% | \$5.20 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (1.3\%) | $2(0.58)$ | 8 (2.18) | 0 |
|  | $80 \%$ | \$5.79 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.3\%) | 6(1.6\%) | $9(2.48)$ | 0 |
|  | 84\% | \$6.51 | 0 | 0 | 0 | 0 | 0 | 0 | 3(0.8\%) | 7(1.8\%) | 5(1.38) | 0 |
|  | 88\% | \$9.10 | 0 | 0 | 0 | 0 | 0 | 0 | 11 (2.98) | 2 (0.5\%) | 2(0.5\%) | 0 |
|  | 92\% | \$12.86 | 0 | 0 | 0 | 0 | 0 | 0 | 14 (3.78) | 1 (0.38) | 0 | $\bigcirc$ |
|  | 96\% | \$17.55 | 0 | 0 | 0 | 0 | 0 | 0 | 14 (3.7\%) | 1(0.38) | 0 | 0 |
|  | $100 \%$ | \$47.67 | 0 | 0 | 0 | 0 | 0 | 0 | 14 (3.78) | 1 (0.38) | 0 | 0 |
| total |  |  | 0 | 2 | 2 | 57 | 0 | 0 | 189 | 45 | 65 | 19 |
|  |  |  | $0.0 \%$ | 0.5\% | 0.57 | 15.0\% | 0.08 | $0.0 \%$ | 49,9\% | 11.98 | 17.2\% | $5.0 \%$ |
| cumulative |  |  | 0 | 2 | 4 | 61 | 61 | 61 | 250 | 295 | 360 | 379 |
|  |  |  | 0.08 | $0.5 \%$ | 1.18 | 16.1\% | 16.18 | 16.18 | 66.08 | 77.8\% | 95.0\% | $100.0 \%$ |


|  | $\begin{array}{cc} \text { § } \\ \mathrm{PCT} & \mathrm{D} \end{array}$ | MONTHLY \$ DIFFERENCE | BELOW -208 DECREASE | $-20--10 \%$ DECREASE | $-10--5 \%$ <br> DECREASE | $-5--0.01 \%$ <br> DECREASE | $\begin{gathered} -0.01-0 \% \\ \text { DECREASE } \end{gathered}$ | $0-0.01 \%$ <br> INCREASE | $0.01-5 \%$ <br> INCREASE | $5-108$ <br> INCREASE | $10-20 \%$ <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$9.84 | 5 (0.08) | 9 (0.08) | 11(0.0\%) | $61(0.18)$ | 0 | 0 | $254(0.48)$ | 249(0.4\%) | 288 (0.5\%) | 1,439(2.58) |
|  | 8\% | \$11.50 | 0 | 0 | 0 | 0 | 0 | 0 | 75 (0.18) | 404 (0.78) | 724 (1.3\%) | 1,110(1.98) |
|  | 12\% | \$12.44 | 0 | 0 | 0 | 0 | 0 | 0 | 42 (0.1\%) | 385 (0.78) | 1,005(1.78) | 884 (1.58) |
|  | 16\% | \$13.19 | 0 | 0 | 0 | 0 | 0 | 0 | 35 (0.18) | 385 (0.78) | 1,092(1.98) | 799 (1.48) |
|  | 20\% | \$13.82 | 0 | 0 | 0 | 0 | 0 | 0 | 20(0.0\%) | 384 (0.78) | 1,240(2.18) | 678 (1.28) |
|  | 248 | \$14.40 | 0 | 0 | 0 | 0 | 0 | 0 | $19(0.08)$ | 382 (0.78) | 1,220(2.18) | 669 (1.28) |
|  | 28\% | \$14.94 | 0 | 0 | 0 | 0 | 0 | 0 | 14 (0.08) | $379(0.78)$ | 1,210(2.18) | 742 (1.38) |
|  | 32\% | \$15.46 | 0 | 0 | 0 | 0 | 0 | 0 | 18 (0.08) | 378 (0.78) | 1,128(2.08) | 791 (1.4\%) |
|  | 36\% | \$15.99 | 0 | 0 | 0 | 0 | 0 | 0 | 12 (0.08) | 389 (0.78) | 1,017(1.88) | 875 (1.58) |
|  | $40 \%$ | \$16.56 | 0 | 0 | 0 | 0 | 0 | 0 | $11(0.08)$ | 451 (0.88) | 1,065(1.88) | 775 (1.38) |
|  | 448 | \$17.18 | 0 | 0 | 0 | 0 | 0 | 0 | 10(0.08) | $494(0.98)$ | 1,093(1.98) | 715 (1.2\%) |
|  | $48 \%$ | \$17.84 | 0 | 0 | 0 | 0 | 0 | 0 | $8(0.08)$ | 533(0.98) | 1,126(1.98) | $640(1.18)$ |
|  | 52\% | \$18.59 | 0 | 0 | 0 | 0 | 0 | 0 | $12(0.0 \%)$ | 613 (1.18) | 1,088(1.98) | 597(1.08) |
|  | $56 \%$ | \$19.38 | 0 | 0 | 0 | 0 | 0 | 0 | 12(0.08) | 638 (1.18) | 1,087(1.98) | 572 (1.08) |
|  | 60\% | \$20.27 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (0.0\%) | 691(1.28) | 1,058(1.8\%) | 554 (1.08) |
| I | 64* | \$21.27 | 0 | 0 | 0 | 0 | 0 | 0 | 8 (0.08) | 739 (1.38) | 1,052 (1.87) | 515 (0.98) |
| $\omega$ | 688 | \$22.33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 755(1.38) | 1,035(1.88) | 523(0.98) |
|  | 72\% | \$23.50 | 0 | 0 | 0 | 0 | 0 | 0 | $8(0.08)$ | 708 (1.28) | 1,100(1.9\%) | 503 (0.98) |
| 0 | $76 \%$ | \$24.74 | 0 | 0 | 0 | 0 | 0 | 0 | 11(0.08) | 688(1.2\%) | 1,089(1.98) | 507(0.98) |
|  | 80\% | \$26.09 | 0 | 0 | 0 | 0 | 0 | 0 | $5(0.0 \%)$ | 662 (1.18) | 1,180(2.08) | 475 (0.88) |
|  | 848 | \$27.62 | 0 | 0 | 0 | 0 | 0 | 0 | $5(0.08)$ | 657(1.18) | 1,148(2.08) | 490 (0.8\%) |
|  | $88 \%$ | \$29.42 | 0 | 0 | 0 | 0 | 0 | 0 | $5(0.08)$ | 687(1.2\%) | 1,157(2.08) | 467 (0.8\%) |
|  | $92 \%$ | \$32.15 | 0 | 0 | 0 | 0 | 0 | 0 | $4(0.08)$ | 744 (1.38) | 1.124(1.98) | 434 (0.8\%) |
|  | 96\% | \$37.22 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.08)$ | 849 (1.5\%) | 1,028(1.8\%) | 432 (0.7\%) |
|  | 100\% | \$304.32 | 0 | 0 | 0 | 0 | 0 | 0 | 10 (0.08) | 1,110(1.98) | 825 (1.4\%) | 362 (0.6\%) |
|  | TOTAL |  | 5 | 9 | 11 | 61 | 0 | 0 | 604 | 14,354 | 26,179 | 16,548 |
|  |  |  | $0.0 \%$ | 0.07 | $0.0 \%$ | 0.18 | 0.08 | 0.07 | 1.0\% | 24.8\% | 45.38 | 28.6\% |
|  | cumulative |  | 5 | 14 | 25 | 86 | 86 | 86 | 690 | 15,044 | 41,223 | 57,771 |
|  |  |  | 0.06 | 0.0\% | 0.08 | 0.18 | 0.18 | 0.1\% | 1.2\% | 26.0 \% | 71.48 | $100.0 \%$ |
|  | AVG. MO | 0 DIPF. | \$-21.5 | \$-15.2 | \$-33.7 | \$-5.2 |  | - | \$12.0 | \$23.3 | \$20.6 | \$17.9 |

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service


AND 2015 Summer proposed 3.2 Rates using 508 BQ
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
RES full service

|  | $\begin{array}{cc} \$ & M \\ \text { PCT } & \mathrm{D} \end{array}$ | MONTHLY \$ <br> diprerence | BELOW - 20 \% <br> DECREASE | $-20--10 \%$ <br> decrease | $-10--5 \%$ <br> Decrease | $-5--0.01 \%$ <br> DECREASE | $-0.01-0 \%$ <br> decrease | $0-0.01 \%$ | $0.01-5 \%$ <br> increase | $5-10 \%$ <br> increase | $10-20 \%$ <br> INCREASE | ABOVE 20\% incriase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$8.57 | 0 | 0 | 0 | $21(0.08)$ | 0 | $32(0.18)$ | 142 (0.36) | 644 (1.5\%) | 919 (2.18) | 0 |
|  | 8\% | \$10.55 | 0 | 0 | 0 | 0 | 0 | 0 | 25 (0.18) | 572 (1.38) | 1,161(2.6\%) | 0 |
|  | 12\% | \$11.90 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 6(0.05) | 700(1.64) | 1,065 (2.4\%) | $1(0.08)$ |
|  | 168 | \$13.15 | 0 | 0 | 0 | 0 | 0 | 0 | $11(0.08)$ | 823 (1.98) | 911(2.1\%) | $2(0.08)$ |
|  | 208 | \$14.36 | 0 | 0 | 0 | 0 | 0 | 0 | 11 (0.08) | 887(2.08) | 866 (2.08) | 1 (0.08) |
|  | 24\% | \$15.57 | 0 | 0 | 0 | 0 | 0 | 0 | 12(0.08) | 921 (2.1\%) | 820(1.98) | 0 |
|  | 28\% | \$16.73 | 0 | 0 | 0 | 0 | 0 | 0 | $12(0.0 \%)$ | 912 (2.18) | 819 (1.98) | 0 |
|  | 32\% | \$17.97 | 0 | 0 | 0 | 0 | 0 | 0 | 12 (0.08) | 899 (2.0\%) | 847(1.98) | 1 (0.08) |
|  | $36 \%$ | \$19.21 | 0 | 0 | 0 | 0 | 0 | 0 | $6(0.08)$ | 870 (2.08) | 878(2.08) | 1 (0.08) |
|  | 408 | \$20.45 | 0 | 0 | 0 | 0 | 0 | 0 | $4(0.0 \%)$ | 775 (1.8\%) | $995(2.38)$ | 0 |
|  | 44\% | \$21.68 | 0 | 0 | 0 | 0 | 0 | 0 | $4(0.08)$ | 700 (1.6\%) | 1,047(2.4\%) | 0 |
|  | 48\% | \$22.83 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.08) | 597(1.48) | 1,144(2.6\%) | 0 |
|  | 52\% | \$23.94 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | 535 (1.28) | 1,232(2.88) | 0 |
|  | 56\% | \$25.07 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.0 \%)$ | 440 (2.0\%) | 1,315(3.0\%) | 0 |
|  | $60 \%$ | \$26.32 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | 430 (1.08) | 1,315(3.08) | 1 (0.08) |
| D | 64\% | \$27.63 | 0 | 0 | 0 | 0 | 0 | 0 | 2 (0.08) | 405 (0.9\%) | 1,346(3.18) | 0 |
| $\omega$ | 68\% | \$29.19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 392 (0.98) | 1,367(3.18) | 0 |
| 1 | 72\% | \$31.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 409 (0.98) | 1,350(3.18) | 0 |
| $\infty$ | 76\% | \$33.28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 415 (0.9\%) | 1,336(3.08) | 0 |
|  | $80 \%$ | \$35.97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 422 (1.08) | 1,336(3.08) | 0 |
|  | 84\% | \$39.56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 375 (0.98) | 1,381(3.1\%) | 0 |
|  | 88\% | \$44.48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 347 (0.88) | 1,407(3.26) | 0 |
|  | 92\% | \$52.46 | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 295 (0.78) | 1,461(3.38) | 0 |
|  | 96\% | \$69.97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 175 (0.48) | 1,582(3.64) | 0 |
|  | 100\% | 1346.91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $74(0.28)$ | 1,681 (3.8\%) | 0 |
|  | total |  | 0 | 0 | 0 | 21 | 0 | 32 | 256 | 14,014 | 29,581 | 7 |
|  |  |  | 0.08 | 0.08 | $0.0 \%$ | 0.0\% | 0.0\% | 0.17 | $0.6 \%$ | 31.9\% | 67.4\% | 0.08 |
|  | cumulative |  | 0 | 0 | 0 | 21 | 21 | 53 | 309 | 14,323 | 43,904 | 43,911 |
|  |  |  | $0.0 \%$ | 0.0\% | 0.07 | 0.08 | 0.08 | 0.17 | 0.7\% | 32.6\% | 100.04 | 100.0\% |
|  | AVG.MO | O DIFF. | - | - | . | \$-11.9 | - | \$0.0 | \$8.2 | \$21.4 | \$32.1 | \$16.2 |

AND 2015 Summer proposed 3.2 Rates using 504 BQ

## por annual.

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service

|  | $\begin{array}{cc} \$ & \mathrm{M} \\ \mathrm{PCT} & \mathrm{D} \end{array}$ | MONTHLY \$ DIFFERENCE | BELOW -20\% DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 \frac{2}{5}$ <br> DECREASE | $-5--0.01 \%$ DECREASE | $\begin{gathered} -0.01-0 \% \\ \text { DECREASE } \end{gathered}$ | $0-0.01 \%$ <br> increase | $\begin{gathered} 0.01-5 \% \\ \text { INCREASE } \end{gathered}$ | 5 - 10\% increase | $10-20 \%$ <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$7.92 | 0 | 0 | 0 | 0 | 0 | 4(0.08) | $2(0.08)$ | $8(0.14)$ | 322(3.78) | $12(0.18)$ |
|  | $8 \%$ | \$9.10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 (3.4\%) | $55(0.68)$ |
|  | 12\% | \$10.19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 288 (3.38) | $62(0.7 \%)$ |
|  | 15\% | \$11.19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 293 (3.4\%) | $53(0.6 \%)$ |
|  | $20 \%$ | \$12.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 304(3.5\%) | $47(0.58)$ |
|  | 248 | \$13.11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 283(3.38) | $61(0.78)$ |
|  | 28\% | \$14.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 288(3.38) | $65(0.78)$ |
|  | 327 | \$15.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 287(3.38) | 57(0.7\%) |
|  | $36 \%$ | \$15.90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 299 (3.48) | $49(0.6 \%)$ |
|  | 408 | \$16.83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 301 (3.5\%) | $53(0.68)$ |
|  | $44 \%$ | \$17.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 276 (3.28) | 65(0.78) |
|  | 48\% | \$18.25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 293 (3.48) | $57(0.78)$ |
|  | 52\% | \$18.93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 315(3.6\%) | 34(0.4\%) |
|  | 568 | \$19.73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 299 (3.4\%) | 46 (0.58) |
|  | $60 \%$ | \$20.60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 311 (3.6\%) | 38 (0.4\%) |
| $>$ | $64 \%$ | \$21.68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 305 (3.58) | $41(0.5 \%)$ |
| $\omega$ | 68\% | \$22.63 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 0 | 0 | 304 (3.58) | 44 (0.5\%) |
| 1 | 72\% | \$23.84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 295 (3.4\%) | $57(0.78)$ |
| 6 | $76 \%$ | \$25.17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $\bigcirc$ | 291 (3.38) | 53(0.6\%) |
|  | 808 | \$27.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 315 (3.68) | $31(0.4 \%)$ |
|  | 84\% | \$29.53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 312 (3.6\%) | 35(0.4\%) |
|  | 88\% | \$32.34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 305 (3.58) | 44 (0.59) |
|  | 92\% | \$36.71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 318 (3.7\%) | 28 (0.38) |
|  | 96\% | \$45.75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 336 (3.98) | 12(0.18) |
|  | 100\% | \$860.64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 340(3.98) | $7(0.1 *)$ |
|  | total |  | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 8 | 7,572 | 1.106 |
|  |  |  | 0.0\% | 0.07 | 0.08 | 0.0\% | $0.0 \%$ | $0.0 \%$ | 0.08 | 0.17 | 87.1\% | 12.7\% |
|  | Cumula | ATIVE | 0 | $\bigcirc$ | 0 | 0 | 0 | 4 | 6 | 14 | 7,586 | 8,692 |
|  |  |  | 0.08 | 0.08 | 0.08 | 0.08 | 0.0\% | 0.08 | 0.17 | 0.2\% | 87.38 | 100.0\% |
|  | Avg. MO | O DIFF. |  |  |  |  |  | \$0.0 | \$0.2 | \$1.3 | \$22.2 | \$18.3 |

Comparison Between 2015 Summer proposed 3.2 Rates using 50\% $B Q$
AND 2016 Summer proposed 3.2 Rates using $50 \% \mathrm{BQ}$
Data From Yearly File (Jan 2011 - Dec 2011)

Data From Yearly File (JAN 2011 - Dec 2011 )
RES full service


AND 2016 Summer proposed 3.2 Rates using $50 \% \mathrm{BQ}$

## FOR ANNUAL

Data From Yearly File (Jan 2011 - Dec 2011)
RES full service


# RATE DATA ANALYSIS :RATEP.DR5238.JCL(RPT32) 

PACIFIC GAS AND ELECTRIC COMPANY
11:31 Wednesday, February 26, 2014 CORRELATION OF AVERAGE MONTHLY DOLLAR AND PERCENT DIFFERENCES Total Annual Bill Summary by Rate Schedules
Comparison Between 2016 Summer proposed 3.2 Rates using 50\% BQ
AND 2017 Sunmer proposed 3.2 Rates using 50\% BQ
Data From Yearly file (JAN 2011 - Dec 2011)
TOTAL ANNUAL

CURRENT BILLS \begin{tabular}{r}
CURRENT <br>
AVG RATE

$\quad$

TOTAL ANNUAL <br>
PROFOSED BILLS
\end{tabular}

PROPOSED aVg rate
0.20738
0.13339
0.19842
0.12931
0.20292
0.12917
0.21248
0.13645
0.18633

| DIFFERENCE | (PROPOSED |
| :---: | :---: |
| (PROROSED- | CURRENT)/ |
| CURRENT) | CURRENT |

MAX DIPFERENCE
\$1, 213
$\$ 1.213$
$\$ 632$
$\$ 202$ $\$ 20$ \$43 $\$ 55$ $\$ 56$ \$578 $\$ 583$
$\$ 4,760$

MIN DIFPERENCE
\$36,081,677
$\$ 36,061,677$
$\$ 65,102,568$ $\$-333,739$ $\$ 28,390$
\$-1,481,995 $\$ 669,082$
\$-5,317,630 \$935,304 $\$ 95,583,656$
$0.96 \%$
6.89\%
( $3.10 \%$ )
3.75\%
( $1.19 \%$ )
6.50\%
( 3.578) 5.28\% 1.91\%
\$-69, 741
$\$ 1$
$\$-15,873$
\$8
\$-6.376
$\$ 2$
, 604
604
$\$ 0$
\$-108, 582

AND 2017 Summer proposed 3.2 Rates using $50 \%$ BQ

## FOR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service
LAST RATE SCHEDULE=EI


AND 2017 Summer proposed 3.2 Rates using $50 \%$ BQ
POR ANNUAL
Data From Yearly File(JAN 2011 - Dec 2011)
RES full service

|  |  | MONTHLY \$ difference | BELOW -20\% DECREASE <br> 0 | $-20--10 \%$ <br> DECREASE <br> 0 | $-10--5 \%$ <br> DECREASE <br> 0 | $-5--0.018$ <br> decrease <br> 0 | $-0.01-0 \%$ <br> DECREASE <br> 0 | $0-0.01 \%$ <br> INCREASE <br> 0 | 0.01 - 5\% INCREASE$2,308(0.2 \%)$ | 5-10\% INCREASE$44,584(3.9 \%)$ | 10-20\% <br> increase <br> 0 | ABOVE 20\% INCREASE <br> 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$1.35 |  |  |  |  |  |  |  |  |  |  |
|  | $8 \%$ | \$1.73 | 0 | 0 | 0 | 0 | 0 | 0 | 13 (0.08) | 46,494(4.08) | 0 | 0 |
|  | 12\% | \$2.04 | 0 | 0 | 0 | 0 | 0 | 0 | 16 (0.08) | 46,869(4.18) | 0 | 0 |
|  | 16\% | \$2.32 | 0 | 0 | 0 | 0 | 0 | 0 | 19(0.08) | 46,088(4.08) | 0 | 0 |
|  | $20 \%$ | \$2.59 | 0 | 0 | 0 | 0 | 0 | 0 | $22(0.08)$ | 45,991(4.08) | 0 | 0 |
|  | 24\% | \$2.86 | 0 | 0 | 0 | 0 | 0 | 0 | 28(0.08) | 46,820(4.08) | 0 | 0 |
|  | $28 \%$ | \$3.13 | 0 | 0 | 0 | 0 | 0 | 0 | 29(0.08) | 46,123(4.08) | 0 | 0 |
|  | 32\% | \$3.40 | 0 | 0 | 0 | 0 | 0 | 0 | 43 (0.08) | 45,116(3.98) | 0 | 0 |
|  | 368 | \$3.68 | 0 | 0 | 0 | 0 | 0 | 0 | 61 (0.08) | 46,667(4.08) | 0 | 0 |
|  | $40 \%$ | \$3.96 | 0 | 0 | 0 | 0 | 0 | 0 | 100(0.08) | 46,110(4.08) | 0 | 0 |
|  | 44\% | \$4.24 | 0 | 0 | 0 | 0 | 0 | 0 | 161 (0.08) | 46,396(4.07) | 0 | 0 |
|  | 48\% | \$4.51 | 0 | 0 | 0 | 0 | 0 | 0 | 346 (0.08) | 46,304(4.08) | 0 | 0 |
|  | 52\% | \$4.74 | 0 | 0 | 0 | 0 | 0 | 0 | 853 (0.18) | 44,088(3.8\%) | 0 | 0 |
|  | 56\% | \$4.84 | 0 | 0 | 0 | 0 | 0 | 0 | 11,563(1.08) | 37,056(3.28) | 0 | 0 |
|  | 60\% | \$5.18 | 0 | 0 | 0 | 0 | 0 | 0 | 312 (0.08) | 44,365(3.8\%) | 0 | 0 |
| $\xrightarrow{>}$ | 64* | \$5.53 | 0 | 0 | 0 | 0 | 0 | 0 | 221 (0.0\%) | 45,574 (3.98) | 0 | 0 |
| $\omega$ | 68\% | \$5.88 | 0 | 0 | 0 | 0 | 0 | 0 | 323 (0.08) | 46.397(4.08) | 0 | 0 |
| $\xrightarrow{1}$ | 72\% | \$6.21 | 0 | 0 | 0 | - | 0 | 0 | 569 (0.08) | 45,764 (4.08) | 0 | 0 |
| $\cdots$ | 76\% | \$6.46 | 0 | 0 | 0 | 0 | 0 | 0 | 2,781(0.2\%) | 44,575(3.98) | 0 | 0 |
|  | 80\% | \$6.66 | 0 | 0 | 0 | 0 | 0 | 0 | 9, 204(0.8\%) | 35,636(3.1\%) | 0 | - |
|  | 84\% | \$7.10 | 0 | 0 | 0 | 0 | 0 | 0 | 2,481(0.28) | 43,039(3.78) | 0 | 0 |
|  | 88\% | \$7.54 | 0 | 0 | 0 | 0 | 0 | 0 | 2.402(0.2\%) | 44,907(3.98) | 0 | 0 |
|  | 92\% | \$7.84 | 0 | 0 | 0 | 0 | 0 | 0 | 10,349(0.98) | 35,238(3.08) | 0 | 0 |
|  | 96\% | \$8.70 | 0 | 0 | 0 | 0 | 0 | 0 | 13,681(1.2\%) | 32,173(2.8\%) | 0 | 0 |
|  | 100\% | \$52.66 | 0 | 0 | 0 | 0 | 0 | 0 | 2,979(0.38) | 43,224 (3.78) | 0 | 0 |
|  | total |  | 0 | 0 | 0 | 0 | 0 | 0 | 60,874 | 1095598 | 0 | 0 |
|  |  |  | 0.0\% | 0.0\% | $0.0 \%$ | 0.08 | 0.0\% | 0.0\% | 5.37 | 94.7\% | 0.0\% | 0.0\% |
|  | cumulative |  | 0 | 0 | 0 | 0 | 0 | 0 | 60,874 | 1156472 | 1156472 | 1156472 |
|  |  |  | $0.0 \%$ | 0.0\% | $0.0 \%$ | 0.0\% | $0.0 \%$ | 0.08 | $5.3 \%$ | 100.0\% | 100.0\% | 100.0\% |

> rate data analysis : RATEP.DR5238.JCL (RPT32) pacIfic GAS and ELECTRIC COMPANY
> PACIFIC GAS AND ELECTRIC COMPANY 11: Total Annual Bill Summary by Rate Schedules
> Comparison Between 2017 Summer proposed 3.2 Rates using $50 \% \mathrm{BQ}$ AND 2018 Summer proposed 3.2 Rates using $50 \%$ B Data from yearly file (JAN 2011 - Dec 2011)

11:31 Wednesday, February 26, 2014


AND 2018 Summer proposed 3.2 Rates using 50\% BQ
FOR ANNUAL
Data From Yearly File(JAN 2011 - Dec 2011)
RES full service

|  | $\begin{gathered} \$ \\ \mathrm{PCT} \end{gathered}$ | MONTHLY \$ <br> DIFFERENCE | BELOW -20\% decrease | $-20--108$ <br> DECREASE | $-10--58$ <br> DECREASE | $-5--0.018$ <br> DECREASE | $-0.01-08$ <br> DECRRASE | $0-0.01 t$ <br> INCREASE | $0.01-5 \%$ <br> increase | $5-10 \%$ <br> increase | $10-20 \%$ <br> INCREASE | ABOVE 20\% <br> INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$-8.58 | 0 | 2.436 (0.18) | 53,140(1.9\%) | 57,158(2.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $8 \%$ | \$-3.08 | 0 | 0 | $56(0.08)$ | 112,580(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | \$-0.14 | 0 | 0 | 5 (0.0\%) | 112,522(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 16\% | \$0.90 | 0 | 0 | 0 | 5,898(0.2\%) | 855 (0.0\%) | 899 (0.08) | 95, 164 (3.4\%) | 10,850(0.48) | 0 | 0 |
|  | $20 \%$ | \$1.59 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 43,318(1.5\%) | 68,225 (2.4\%) | 0 | $\bigcirc$ |
|  | 24\% | \$2.14 | 0 | 0 | 0 | 0 | 0 | 0 | 38,667(1.48) | 74,747(2.78) | 0 | 0 |
|  | 28\% | \$2.60 | 0 | 0 | 0 | 0 | 0 | 0 | 36,336(1.38) | 77,017(2.78) | 0 | 0 |
|  | 32\% | \$3.00 | 0 | 0 | 0 | 0 | 0 | 0 | 35,068(1.2\%) | 77.390(2.78) | 0 | 0 |
|  | 36\% | \$3.36 | 0 | 0 | 0 | 0 | 0 | 0 | 33,806(1.2\%) | 78,616(2.8\%) | 0 | 0 |
|  | 408 | \$3.68 | 0 | 0 | 0 | 0 | 0 | 0 | 32,753(1.28) | 78,894 (2.88) | 0 | 0 |
|  | 44\% | \$3.98 | 0 | 0 | 0 | 0 | 0 | 0 | 32,842(1.2\%) | 82,467(2.98) | 0 | 0 |
|  | $48 \%$ | \$4.25 | 0 | 0 | 0 | 0 | 0 | 0 | 31,922(1.18) | 80,513 (2.98) | 0 | 0 |
|  | 52\% | \$4.50 | 0 | 0 | 0 | 0 | 0 | 0 | 30,836(1.1\%) | 79.781(2.88) | 0 | 0 |
|  | 56\% | \$4.74 | 0 | 0 | 0 | 0 | 0 | 0 | 29,057(1.08) | 82,792(2.98) | 0 | 0 |
|  | $60 \%$ | \$4.98 | 0 | 0 | 0 | 0 | 0 | 0 | 25,151(0.9\%) | 91,182(3.25) | 0 | - |
| $\xrightarrow{>}$ | 64\% | \$5.21 | 0 | 0 | 0 | 0 | 0 | 0 | 24,155(0.9\%) | 87,828 (3.18) | 0 | 0 |
| $\omega$ | 68\% | \$5.47 | 0 | 0 | 0 | 0 | 0 | 0 | 28,419(1.08) | 84,373(3.08) | 0 | 0 |
| $\stackrel{1}{-}$ | 72\% | \$5.74 | 0 | 0 | 0 | 0 | 0 | 0 | 29,728(1.18) | 82,691(2.98) | 0 | 0 |
| $\sim$ | 76\% | \$6.00 | 0 | 0 | 0 | 0 | 0 | 0 | 27,421(1.07) | 84,828(3.08) | 0 | 0 |
|  | 80\% | \$6.25 | 0 | 0 | 0 | 0 | 0 | 0 | 22,352(0.8\%) | 87,530(3.18) | 0 | 0 |
|  | 84\% | \$6.51 | 0 | 0 | 0 | 0 | 0 | 0 | 15,504 (0.6\%) | 97,634(3.5\%) | 0 | 0 |
|  | 88\% | \$6.80 | 0 | 0 | 0 | 0 | 0 | 0 | 12,080(0.4\%) | 101,175(3.68) | 0 | 0 |
|  | 92\% | \$7.21 | 0 | 0 | 0 | 0 | 0 | 0 | 10,635 (0.48) | 101,467(3.65) | 0 | 0 |
|  | 96\% | \$8.23 | 0 | 0 | 0 | 0 | 0 | 0 | 6,367(0.2\%) | 105,384(3.78) | 0 | 0 |
|  | 100\% | 146.94 | 0 | 0 | 0 | 0 | 0 | 0 | 11,428(0.48) | 101,162(3.6\%) | 0 | 0 |
| total |  |  | 0 | 2,436 | 53,201 | 288,158 | 855 | 899 | 653,009 | 1816546 | 0 | 0 |
|  |  |  | 0.0\% | 0.1\% | 1.9\% | 10.2\% | 0.0\% | 0.0\% | 23.2\% | 64.5\% | $0.0 \%$ | 0.08 |
| cumulative |  |  | 0 | 2,436 | 55,637 | 343,795 | 344,650 | 345,549 | 998,558 | 2815104 | 2815104 | 2815104 |
|  |  |  | 0.08 | 0.1\% | 2.07 | $12.2 \%$ | 12.2\% | 12.3\% | 35.57 | 100.08 | 100.0\% | 100.08 |
| AVG.mo drep. |  |  | . | \$-157.6 | \$-30.3 | \$-5.1 | \$-0.0 | \$0.0 | \$3.7 | \$5.2 |  |  |

AND 2018 Summer proposed 3.2 Rates using 50\% BQ

## FOR ANNUAL

Data from Yearly file (JAN 2011 - Dec 2011)
RES full service

|  | $\begin{array}{cc} \$ \\ \mathrm{PCT} \end{array}$ | MONTHLY \$ <br> DIFFERENCE | BELOW -20\% DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 \%$ <br> DECREASE | $-5--0.018$ DECREASE | $-0.01-08$ DECREASE | $0-0.01 \%$ <br> INCREASE | $0.01-5 \%$ <br> INCREASE | $5-10 \%$ INCREASE | $10-20 \%$ <br> INCREASE | ABOVE 20\% increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4. | \$1.30 | 0 | 0 | 0 | 3,859(0.3\%) | $34(0.08)$ | 43 (0.08) | 4,455(0.4\%) | 38,593(3.38) | 0 | 0 |
|  | 8\% | \$1.69 | 0 | 0 | 0 | 0 | 0 | 0 | 886 (0.17) | 45,851(4.08) | 0 | 0 |
|  | 12\% | \$1.99 | 0 | 0 | 0 | 0 | 0 | 0 | $94.10 .18)$ | 45,235(3.98) | 0 | 0 |
|  | 16\% | \$2.25 | 0 | 0 | 0 | 0 | 0 | 0 | 1,082(0.18) | 44,196(3.88) | 0 | 0 |
|  | 208 | \$2.50 | 0 | 0 | 0 | 0 | 0 | 0 | 1,446(0.18) | 45.643(3.98) | 0 | 0 |
|  | 24\% | \$2.73 | 0 | 0 | 0 | 0 | 0 | 0 | 1.873(0.28) | 44,182(3.88) | 0 | 0 |
|  | 28\% | \$2.95 | 0 | 0 | 0 | 0 | 0 | 0 | 2.487(0.2\%) | 43,022(3.78) | 0 | 0 |
|  | $32 \%$ | \$3.17 | 0 | 0 | 0 | 0 | 0 | 0 | 3,538(0.3\%) | 43,713(3.88) | 0 | 0 |
|  | 36\% | \$3.38 | 0 | 0 | 0 | 0 | 0 | 0 | 4,848(0.48) | 41,793(3.68) | 0 | 0 |
|  | 408 | \$3.58 | 0 | 0 | 0 | 0 | 0 | 0 | 6,548(0.6\%) | 40,667(3.58) | 0 | 0 |
|  | $44 \%$ | \$3.76 | 0 | 0 | 0 | 0 | 0 | 0 | 8,742(0.8\%) | 37,667(3.38) | 0 | 0 |
|  | 48\% | \$3.92 | 0 | 0 | 0 | 0 | 0 | 0 | $7.358\left(0.6 \frac{3}{3}\right)$ | 38,138(3.38) | 0 | 0 |
|  | 528 | \$4.09 | 0 | 0 | 0 | 0 | 0 | 0 | 2,334(0.28) | 43,967(3.8釉) | 0 | 0 |
|  | $56 \%$ | \$4.34 | 0 | 0 | 0 | 0 | 0 | 0 | 4,531(0.4\%) | 40,949(3.58) | 0 | 0 |
|  | 608 | \$4.58 | 0 | 0 | 0 | 0 | 0 | 0 | 6,019(0.5\%) | 39,401(3.48) | 0 | 0 |
| $\xrightarrow{>}$ | $64 \%$ | \$4.81 | 0 | 0 | 0 | 0 | 0 | 0 | 8,349(0.78) | 38,970(3.48) | 0 | 0 |
| $\omega$ | $68 \%$ | \$5.01 | 0 | 0 | 0 | 0 | 0 | 0 | 10.109(0.97) | 35.159 (3.08) | 0 | 0 |
| $\xrightarrow{1}$ | 72\% | \$5.20 | 0 | 0 | 0 | 0 | 0 | 0 | 11,586(1.08) | 35,440(3.18) | 0 | 0 |
| $\infty$ | 76\% | \$5.38 | 0 | 0 | 0 | 0 | 0 | 0 | 6,337(0.58) | 40,555 (3.5\%) | 0 | 0 |
|  | $80 \%$ | \$5.59 | 0 | 0 | 0 | 0 | 0 | 0 | 9.103(0.8\%) | 36,279(3.1\%) | 0 | 0 |
|  | 84\% | \$5.84 | 0 | 0 | 0 | 0 | 0 | 0 | 14,027(1.28) | 32,370(2.88) | 0 | 0 |
|  | 888 | \$6.07 | 0 | 0 | 0 | 0 | 0 | 0 | 15,857(1.48) | 29,772 (2.67) | 0 | 0 |
|  | 92\% | \$6.34 | 0 | 0 | 0 | 0 | 0 | 0 | 12,744(1.18) | 34,433(3.08) | 0 | 0 |
|  | 96\% | \$7.95 | 0 | 0 | 0 | 0 | 0 | 0 | 4,665 (0.48) | 40,372 (3.58) | 0 | 0 |
|  | $100 \%$ | \$45.99 | 0 | 0 | 0 | 0 | 0 | 0 | 6.164 (0.5\%) | 40,040(3.5\%) | 0 | 0 |
| total |  |  | 0 | 0 | 0 | 3,859 | 34 | 43 | 156.129 | 996,407 | 0 | 0 |
|  |  |  | 0.08 | 0.0\% | 0.0\% | 0.38 | 0.08 | 0.08 | 13.5\% | $86.2 \%$ | 0.0\% | $0.0 \%$ |
| cumulative |  |  | 0 | 0 | 0 | 3,859 | 3,893 | 3,936 | 160.065 | 1156472 | 1156472 | 1156472 |
|  |  |  | 0.08 | 0.08 | 0.08 | 0.38 | 0.37 | 0.3\% | $13.8 \%$ | 100.07 | 100.08 | 100.07 |

Total Annual Bill Sumary by Rate Schedules
Comparison Between 2015 Summer proposed 3.2 E6/E6L Rates using $50 \%$ BQ
AND 2016 Summer proposed 3.2 ETOU/ETOUL Rates using $50 \%$ BQ
E6 Migrating to ETOU/ Data From Yearly File(JAN 2011 - Dec 2011)

| LAST <br> Rate SChBDULE | count | ANNUAL TOTAL KWH | total annual Curpent bills | Current <br> avg rate | total annual PROPOSED BILLS | PROPOSED <br> avg rate | DIffrerence (PROPOSEDCURRENT) | (PROPOSEDCURRENT)/ CURRENT | max difperence | MIN DIfPERENCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E6 | 5,462 | 52,512,188 | \$11,020,853 | 0.20987 | \$9,728,329 | 0.18526 | \$-1,292,524 | ( 11.738) | \$537 | \$-56,365 |
| E6L | 379 | 6,078,576 | \$730,180 | 0.12012 | \$723,701 | 0.11906 | \$-6,480 | ( 0.898) | \$665 | \$-2,372 |
| rotal | 5,841 | 58,590,764 | \$11,751,033 | 0.20056 | \$10,452,029 | 0.17839 | \$-1,299,003 | ( 11.058) | \$1,203 | \$-58,738 |

# RATE DATA ANALYSIS :RATEF.DR5238.JCL(RPT32MIG) PACIFIC GAS AND ELECTRIC COMPANY 

 PACIFIC GAS AND ELECTRIC COMPANYAVERAGE MONTHLY DOLLAR AND PERCENT DIFPERENCES
CORRELATIO 2015 Summer proposed 3.2 E6/R6L Rates using $50 \% \mathrm{BQ}$
AND 2016 Summer proposed 3.2 ETOU/ETOUL Rates using 50\% BO
POR ANNUAL
E6 Migrating to ETOU/ Data From Yearly File(JAN 2011 - Dec 2011)
RES full service


E6 Migrating to ETOU/ Data From Yearly File(JAN 2011 - Dec 2011) Res full service

|  | $\begin{array}{cc} \$ & \mathrm{M} \\ \mathrm{PCT} & \mathrm{D} \end{array}$ | NTHLY \$ FFERENCE | BELOW -20\% DECREASE | $-20--108$ DECREASE | $-10--5 \%$ <br> DECREASE | $\begin{gathered} -5--0.018 \\ \text { DECREASE } \end{gathered}$ | $\begin{gathered} -0.01-0 \% \\ \text { DEcrease } \end{gathered}$ | $0-0.01 \%$ <br> INCREASE | $0.01-5 \%$ <br> increase | $5-10 \%$ INCREASE | $10-20 \%$ <br> INCREASE | ABOVE 20\% inCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | -71.48 | 0 | 15(4.08) | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $8 \%$ | -47.36 | 0 | 13 (3.48) | $2(0.58)$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | -32.43 | 0 | 5 (1.38) | 10(2.6\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $16 \%$ | -19.31 | 0 | 0 | 14 (3.78) | 1(0.38) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 208 | \$-7.75 | 0 | 0 | 8 (2.18) | 8 (2.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | \$-3.69 | 0 | 0 | 1 (0.3\%) | 14 (3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | \$1.80 | 0 | 0 | 0 | 8 (2.18) | 0 | 0 | 7 (1.87) | 0 | 0 | 0 |
|  | 32\% | \$3.22 | 0 | 0 | 0 | 0 | 0 | 0 | 13(3.48) | 0 | $2(0.58)$ | 0 |
|  | $36 \%$ | \$5.14 | 0 | 0 | 0 | 0 | 0 | 0 | 9(2.4\%) | 5 (1.38) | 0 | 1(0.3\%) |
|  | 40\% | \$6.55 | 0 | 0 | 0 | 0 | 0 | 0 | 6 (1.6\%) | 5(1.3\%) | 0 | 5(1.38) |
|  | 44\% | \$7.63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10(2.6\%) | 1(0.3\%) | 6 (1.67) |
|  | 48\% | \$8.28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5(1.38) | 3 (0.88) | 6 (1.6\%) |
|  | 52\% | \$8.88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.38) | 5 (1.37) | 8 (2.18) |
|  | $56 \%$ | \$9.25 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.38) | 3 (0.88) | 5 (1.38) | 6 (1.67) |
|  | $60 \%$ | \$10.09 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.37) | 0 | 6(1.6\%) | 9(2.4\%) |
| $>$ | 648 | \$10.65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.88)$ | 12(3.2\%) |
| $\omega$ | 68\% | \$11.39 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.3\%) | 0 | 7(1.8\%) | 7(1.8\%) |
| N | 72\% | \$11.91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.58)$ | 4(1.13) | 10(2.6\%) |
|  | $76 \%$ | \$12.41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 (1.68) | 8 (2.18) |
|  | $80 \%$ | \$13.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.3\%) | 5(1.38) | 10(2.6\%) |
|  | $84 \%$ | \$15.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2(0.58) | $2(0.58)$ | 11 (2.9\%) |
|  | 88\% | \$17.67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.38) | $3(0.88)$ | 11 (2.98) |
|  | 92\% | \$19.35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.8 \%)$ | 12(3.2\%) |
|  | $96 \%$ | \$23.02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7(1.8\%) | 8 (2.18) |
|  | 100\% | \$55.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.8 \%)$ | 12 (3.28) |
|  | total |  | 0 | 33 | 35 | 31 | 0 | 0 | 38 | 35 | 65 | 142 |
|  |  |  | 0.08 | 8.78 | 9.2* | 8.28 | 0.0\% | 0.0\% | 10.0\% | 9.2\% | 17.2\% | 37,5\% |
|  | Cumulative |  | 0 | 33 | 68 | 99 | 99 | 99 | 137 | 172 | 237 | 379 |
|  |  |  | 0.08 | 8.7\% | 17.98 | 26.1\% | 26.1\% | 26.17 | 36.17 | 45.4\% | 62.5\% | 100.0\% |
|  | AVG.MO DIFF. |  |  | \$-79.8 | \$-28.3 | \$-6.5 |  |  | \$3.8 | \$8.0 | \$13.6 | \$14.1 |

Comparison Between 2015 Summer proposed 3.2 E8/E8L Rates using 50\% BQ AND 2016 Sumner proposed 3.2 E1/EAL Rates using $50 \% \mathrm{BQ}$
E8 Migrating to E1/ Data From Yearly File (JAN 2011 - Dec 2011)

| $\begin{gathered} \text { LAST } \\ \text { RATE } \\ \text { SCHEDULE } \end{gathered}$ | COUNT | ANNUAL TOTAL KWH | total annual CURRENT BILLS | Current <br> AVG RATE | total annual proposed bills | PROPOSED <br> avg rate | DIfference <br> (PROPOSEDCURRENT) |  | PROPOSED(URRENT)/ CURRENT | MAX DIFFERENCE | MIN DIFperence |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E8 | 43.911 | 675.567,529 | \$155,506,294 | 0.23019 | \$148,649,095 | 0.22004 | \$-6.857.199 | ( | 4.41\%) | \$480 | \$-13,054 |
| Eel | 8,692 | 136,763.391 | \$17,176,939 | 0.12560 | \$17,422,035 | 0.12739 | \$245,097 |  | 1.43\% | \$745 | \$-775 |
| total | 52,603 | 812,330,920 | \$172,683,232 | 0.21258 | \$166,071,131 | 0.20444 | \$-6,612,102 |  | 3.83\%) | \$1,225 | \$-13,829 |

RATE DATA ANALYSIS ; RATEP. DR5238.JCL(RPT32MIG) PACIFIC GAS AND ELECTRIC COMPANY
Corklation of average monthly dollar and percent differences
Comparison Between 2015 Summer proposed $3.2 \mathrm{~EB} / \mathrm{E} 8 \mathrm{~L}$ Rates using $50 \% \mathrm{BQ}$
AND 2016 Summer proposed 3.2 E1/E1L Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
E8 Migrating to E1/ Data From Yearly File (JAN 2011 - Dec 2011)
RES full service

|  | $\begin{gathered} \$ \\ \mathrm{PCT} \end{gathered}$ | MONTHLY \$ <br> difference | BELOW -20\% decrease | $-20--10 \%$ <br> DECRRASE | $-10--5 \%$ <br> decrease | $-5 \cdots-0.01 \%$ <br> DECREASE | $-0.01-0 \%$ <br> DECREASE | $\begin{aligned} & 0-0.01 \% \\ & \text { INCREASE } \end{aligned}$ | $0.01-5 \%$ <br> INCREASE | $5-10 \%$ <br> INCREASE | $10-20 \%$ <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | $-50.38$ | 0 | $5(0.08)$ | 1,751(4.0\%) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 8\% | -35.09 | 0 | 3 (0.08) | 1,735(4.08) | 22(0.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | -27.84 | 0 | $2(0.08)$ | 1,654 (3.88) | 98(0.2\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $16 \%$ | -23.24 | 0 | 1 (0.08) | 1,576(3.68) | 185 (0.4\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 20\% | -20.09 | 0 | 1 (0.08) | 1,477(3.48) | 279(0.6\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 248 | -17.53 | 0 | 0 | 1,374(3.18) | 378 (0.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | -15.46 | 0 | 0 | 1,266(2.9\%) | 495 (1.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | -13.66 | 0 | 0 | 1,003(2.3\%) | 762(1.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 36 \% | -12.03 | 0 | 0 | 622 (1.4\%) | 1,133(2.68) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 40\% | -10.65 | 0 | 1 (0.08) | 304 (0.7\%) | 1,443(3.38) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 44\% | \$-9.32 | 0 | $2(0.08)$ | 126(0.38) | 1,629(3.7\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 48\% | \$-8.09 | 0 | 0 | 52(0.18) | 1,707(3.9\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $52 \%$ | \$-6.96 | 0 | 0 | $32(0.18)$ | 1,733(3.9\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $56 \%$ | \$-5.85 | 0 | 0 | 18 (0.08) | 1,727(3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $60 \%$ | \$-4.82 | 0 | 1 (0.08) | 14 (0.08) | 1,748(4.0\%) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\xrightarrow{7}$ | 64\% | \$-3.86 | 0 | $2(0.08)$ | 19(0.0\%) | 1,728(3.9\%) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\omega$ | 68\% | \$-2.93 | 0 | 11 (0.08) | 18 (0.08) | 1,743(4.07) | 0 | 0 | 0 | 0 | 0 | 0 |
| N | 72\% | \$-2.20 | 38 (0.18) | 72 (0.23) | $74(0.28)$ | 1,556(3.58) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\omega$ | 76\% | \$-1.57 | 0 | $11(0.08)$ | $108(0.28)$ | 1,638(3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $80 \%$ | \$-0.97 | 0 | 0 | 6(0.08) | 1,777(4,08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 84\% | \$-0.44 | 0 | 0 | 0 | 1,729(3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 88\% | \$0.26 | 0 | 0 | 0 | 1,117(2.5\%) | $39(0.18)$ | 33 (0.18) | 580(1.38) | 0 | 0 | 0 |
|  | 92\% | \$1.45 | 0 | 0 | 0 | 0 | 0 | 0 | 1,747(4.08) | 0 | 0 | 0 |
|  | $96 \%$ | \$3.42 | 0 | 0 | 0 | 0 | 0 | 0 | 1,757(4.08) | 2(0.0\%) | 0 | 0 |
|  | 100\% | \$40.02 | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 | 1,690(3.8\%) | 57(0.1\%) | 0 | 0 |
|  | total |  | 38 | 112 | 13,229 | 24,627 | 39 | 33 | 5,774 | 59 | 0 | 0 |
|  |  |  | 0.18 | 0.3\% | 30.18 | 56.1\% | $0.1 \%$ | 0.18 | 13.1\% | 0.18 | 0.08 | 0.04 |
|  | cumulative |  | 38 | 150 | 13,379 | 38,006 | 38,045 | 38,078 | 43.852 | 43,911 | 43,911 | 43,911 |
|  |  |  | $0.1 \%$ | 0.37 | 30.5\% | $86.6 \%$ | 86.68 | 86.78 | 99.9\% | 100.0\% | 100.08 | 100.0\% |
|  | AVg.mo | diff. | \$-2.5 | \$-12.1 | \$-32.6 | \$-6.5 | \$-0.0 | \$0.0 | \$2.8 | \$12.7 |  |  |

AND 2016 Summer proposed 3.2 E1/E1L Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL

Es Migrating to El/ Data From Yearly File(Jan 2011 - Dec 2011)
RES full service
LAST RATE SCHBDULE=EBL

|  | $\begin{gathered} \$ \\ \mathrm{PCT} \end{gathered}$ | monthly \$ Difference | BELOW -20\% DECREASE <br> 0 | $-20--10$ <br> DECREASE $3(0.08)$ | $-10--5 \%$ <br> DECREASE $102(1,2 \%)$ | $-5--0.01 \%$ <br> DECREASE $244(2.8 \%)$ | $-0.01-08$ <br> DECREASE <br> 0 | $0-0.01 \%$ <br> increase <br> 0 | $0.01-5 t$ <br> INCREASE <br> 0 | $5-10 t$ <br> increase <br> 0 | $10-20 \%$ <br> INCREASE <br> 0 | ABOVE 20\% increase <br> 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$-6.44 |  |  |  |  |  |  |  |  |  |  |
|  | $8 \%$ | \$-4.68 | 11 (0.18) | 10(0.18) | 83(1.08) | 242(2.88) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | \$-3.80 | $7(0.18)$ | 19(0.28) | 56(0.6\%) | 266 (3.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $16 \%$ | \$-3.06 | 1 (0.08) | 28 (0.38) | $69(0.88)$ | 250(2.9\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 208 | \$-2.48 | 0 | 5 (0.17) | 53(0.6\%) | 290(3.38) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | \$-1.97 | 0 | 0 | 27 (0.38) | 327(3.88) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 283 | \$-1.57 | 0 | 0 | 1 (0.08) | 343 (3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 327 | \$-1.16 | 0 | 0 | 0 | 351 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 36\% | \$-0.72 | 0 | 0 | 0 | 350 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 408 | \$-0.28 | 0 | 0 | 0 | 344 (4.08) | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 |
|  | 448 | \$0.15 | 0 | 0 | 0 | 224(2.68) | 10(0.18) | 10(0.18) | 100(1.28) | 0 | 0 | 0 |
|  | $48 \%$ | \$0.63 | 0 | 0 | 0 | 0 | 0 | 0 | 349 (4.08) | 0 | 0 | 0 |
|  | 52\% | \$1.14 | 0 | 0 | 0 | 0 | 0 | 0 | 348 (4.08) | 0 | 0 | 0 |
|  | 56\% | \$1.75 | 0 | 0 | 0 | 0 | 0 | 0 | 347 (4.08) | 0 | 0 | 0 |
|  | $60 \%$ | \$2.43 | 0 | 0 | 0 | 0 | 0 | 0 | 348 (4.0\%) | 0 | 0 | 0 |
| $\xrightarrow{1}$ | 64\% | \$3.25 | 0 | 0 | 0 | 0 | 0 | 0 | 339 (3.98) | $6(0.18)$ | 0 | 0 |
| $\omega$ | 68\% | \$4.11 | 0 | 0 | 0 | 0 | 0 | 0 | 342 (3.9\%) | $8(0.18)$ | 0 | 0 |
| N | 72\% | \$5.04 | 0 | 0 | 0 | 0 | 0 | 0 | 312 (3.6\%) | $36(0.48)$ | 0 | 0 |
| + | $76 \%$ | \$6.07 | 0 | 0 | 0 | 0 | 0 | 0 | 288(3.38) | $61(0.78)$ | 0 | 0 |
|  | 80\% | \$7.34 | 0 | 0 | 0 | 0 | 0 | 0 | 250 (2.98) | 98 (1.18) | 0 | 0 |
|  | 84\% | \$8.72 | 0 | 0 | 0 | 0 | 0 | 0 | 203 (2.3\%) | 141(1.6\%) | 0 | 0 |
|  | 88\% | \$10.22 | 0 | 0 | 0 | 0 | 0 | 0 | 139(1.6\%) | 202(2.38) | 7(0.18) | 0 |
|  | 92\% | \$12.28 | 0 | 0 | 0 | 0 | 0 | 0 | 128 (1.58) | 204 (2.38) | 25 (0.2\%) | 0 |
|  | $96 \%$ | \$15.54 | 0 | 0 | 0 | 0 | 0 | 0 | 75(0.98) | 245(2.8\%) | 28 (0.3\%) | 0 |
|  | $100 \%$ | \$62.09 | $\bigcirc$ | 0 | 0 | 0 | 0 | 0 | 57(0.76) | 242 (2.88) | 48 (0.6\%) | 0 |
|  | total |  | 19 | 65 | 391 | 3,231 | 10 | 10 | 3,625 | 1.243 | 98 | 0 |
|  |  |  | $0.2 \%$ | 0.7\% | 4.5\% | 37.28 | 0.18 | $0.1 \%$ | 41.7\% | 14.38 | 1.1\% | 0.0\% |
|  | cumulative |  | 19 | 84 | 475 | 3,706 | 3,716 | 3.726 | 7,351 | 8,594 | 8,692 | 8,692 |
|  |  |  | $0.2 \%$ | 1.0\% | 5.5\% | $42.6 \%$ | 42.8\% | 42.9\% | 84.6\% | 98.98 | 100.0\% | 100.0\% |
|  | AVG.mo | AVG. MO DIFF. | \$-4.7 | \$-4.2 | \$-5.5 | \$-2.7 | \$-0.0 | \$0.0 | \$4.2 | \$12.0 | \$16.5 |  |

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX A -4 

BILL COMPARISON US ING ENERGY DIVISION FORMAT: AT ILLUSTRATIVE RATES A SSUMING 2.1\% GROWTH IN REVENUE REQUIREMENT AND 50\% BASELINE QUANTITIES

PG\&E is in the process of completing the bill comparison using the Energy Division approved format for Appendices A-4, B-4, and C-4 and will provide these appendices by March 7, 2014, as a separate exhibit to the Supplemental Filing.

## PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX B -1

ILLUSTRATIVE RATES A SSUMING 0 \% GROWTH IN REVENUE REQUIREMENT AND 50\% BASELINE QUANTITIES

## Appendix B-1: Illustrative Rates Assuming 0\% Growth in Revenue Requirement and 50\% Baseline Quantities

|  | E-1 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-1 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tier 1 | \$0.147 | \$0.147 | \$0.147 | \$0.158 | \$0.156 | Tier 1 | \$0.091 | \$0.097 | \$0.103 | \$0.108 | \$0.107 |
|  | Tier 2 | \$0.170 | \$0.184 | \$0.184 | \$0.190 | \$0.187 | Tier 2 | \$0.104 | \$0.118 | \$0.124 | \$0.130 | \$0.128 |
|  | Tier 3 | \$0.249 | \$0.184 | \$0.184 | \$0.190 | \$0.187 | Tier 3 | \$0.148 | \$0.118 | \$0.124 | \$0.130 | \$0.128 |
|  | Tier 4 | \$0.309 | \$0.304 | \$0.246 | \$0.190 | \$0.187 | Tier 4 | \$0.148 | \$0.148 | \$0.148 | \$0.130 | \$0.128 |
|  | Customer Charge | \$0.00 | \$5.00 | \$10.00 | \$10.21 | \$10.42 | Customer Charge | \$0.00 | \$2.50 | \$5.00 | \$5.10 | \$5.21 |
|  | E-6 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-6 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
|  | Summer Peak |  |  |  |  |  | Summer Peak |  |  |  |  |  |
|  | Tier 1 | \$0.307 | \$0.275 |  |  |  | Tier 1 | \$0.208 | \$0.225 |  |  |  |
|  | Tier 2 | \$0.330 | \$0.311 |  |  |  | Tier 2 | \$0.222 | \$0.246 |  |  |  |
|  | Tier 3 | \$0.408 | \$0.311 |  |  |  | Tier 3 | \$0.318 | \$0.246 |  |  |  |
|  | Tier 4 | \$0.468 | \$0.432 |  |  |  | Tier 4 | \$0.318 | \$0.276 |  |  |  |
|  | Summer Part-Peak |  |  |  |  |  | Summer Part-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.191 | \$0.182 |  |  |  | Tier 1 | \$0.123 | \$0.132 |  |  |  |
|  | Tier 2 | \$0.215 | \$0.219 |  |  |  | Tier 2 | \$0.138 | \$0.153 |  |  |  |
|  | Tier 3 | \$0.293 | \$0.219 |  |  |  | Tier 3 | \$0.195 | \$0.153 |  |  |  |
| $\xrightarrow{1}$ | Tier 4 | \$0.353 | \$0.339 |  |  |  | Tier 4 | \$0.195 | \$0.183 |  |  |  |
| - | Summer Off-Peak |  |  |  |  |  | Summer Off-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.115 | \$0.122 |  |  |  | Tier 1 | \$0.067 | \$0.072 |  |  |  |
|  | Tier 2 | \$0.138 | \$0.158 |  |  |  | Tier 2 | \$0.081 | \$0.093 |  |  |  |
|  | Tier 3 | \$0.216 | \$0.158 | PG\&E Proposes Closing Schedule$\text { in } 2016$ |  |  | Tier 3 | \$0.113 | \$0.093 | PG\&E Proposes Closing Schedule$\text { in } 2016$ |  |  |
|  | Tier 4 | \$0.276 | \$0.279 |  |  |  | Tier 4 | \$0.113 | \$0.123 |  |  |  |
|  | Winter Part-Peak |  |  |  |  |  | Winter Part-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.136 | \$0.139 |  |  |  | Tier 1 | \$0.082 | \$0.089 |  |  |  |
|  | Tier 2 | \$0.159 | \$0.175 |  |  |  | Tier 2 | \$0.097 | \$0.110 |  |  |  |
|  | Tier 3 | \$0.237 | \$0.175 |  |  |  | Tier 3 | \$0.136 | \$0.110 |  |  |  |
|  | Tier 4 | \$0.297 | \$0.296 |  |  |  | Tier 4 | \$0.136 | \$0.140 |  |  |  |
|  | Winter Off-Peak |  |  |  |  |  | Winter Off-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.119 | \$0.125 |  |  |  | Tier 1 | \$0.070 | \$0.074 |  |  |  |
|  | Tier 2 | \$0.142 | \$0.161 |  |  |  | Tier 2 | \$0.085 | \$0.095 |  |  |  |
|  | Tier 3 | \$0.220 | \$0.161 |  |  |  | Tier 3 | \$0.118 | \$0.095 |  |  |  |
|  | Tier 4 | \$0.280 | \$0.282 |  |  |  | Tier 4 | \$0.118 | \$0.126 |  |  |  |
|  | Customer Charge | \$0.00 | \$5.00 |  |  |  | Customer Charge | \$0.00 | \$2.50 |  |  |  |


|  | E-7 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-7 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Summer Peak |  |  |  |  |  | Summer Peak |  |  |  |  |  |
|  | Tier 1 | \$0.343 | \$0.284 |  |  |  | Tier 1 | \$0.281 | \$0.234 |  |  |  |
|  | Tier 2 | \$0.367 | \$0.321 |  |  |  | Tier 2 | \$0.298 | \$0.255 |  |  |  |
|  | Tier 3 | \$0.446 | \$0.321 |  |  |  | Tier 3 | \$0.425 | \$0.255 |  |  |  |
|  | Tier 4 | \$0.506 | \$0.441 |  |  |  | Tier 4 | \$0.425 | \$0.285 |  |  |  |
|  | Summer Off-Peak |  |  |  |  |  | Summer Off-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.095 | \$0.138 |  |  |  | Tier 1 | \$0.068 | \$0.088 |  |  |  |
|  | Tier 2 | \$0.119 | \$0.175 |  |  |  | Tier 2 | \$0.085 | \$0.109 |  |  |  |
|  | Tier 3 | \$0.198 | \$0.175 |  |  |  | Tier 3 | \$0.115 | \$0.109 |  |  |  |
|  | Tier 4 | \$0.258 | \$0.295 |  |  |  | Tier 4 | \$0.115 | \$0.139 |  |  |  |
|  | Winter Peak |  |  | PG\&E Pro | ses Closin | Schedule | Winter Part-Peak |  |  | PG\&E Pr | es Closi | Schedule |
|  | Tier 1 | \$0.128 | \$0.136 |  | in 2016 |  | Tier 1 | \$0.097 | \$0.086 |  | in 2016 |  |
|  | Tier 2 | \$0.152 | \$0.172 |  |  |  | Tier 2 | \$0.114 | \$0.107 |  |  |  |
|  | Tier 3 | \$0.231 | \$0.172 |  |  |  | Tier 3 | \$0.157 | \$0.107 |  |  |  |
|  | Tier 4 | \$0.291 | \$0.293 |  |  |  | Tier 4 | \$0.157 | \$0.137 |  |  |  |
|  | Winter Off-Peak |  |  |  |  |  | Winter Off-Peak |  |  |  |  |  |
|  | Tier 1 | \$0.098 | \$0.124 |  |  |  | Tier 1 | \$0.071 | \$0.074 |  |  |  |
| +1 | Tier 2 | \$0.122 | \$0.161 |  |  |  | Tier 2 | \$0.088 | \$0.095 |  |  |  |
| $\stackrel{\square}{1}$ | Tier 3 | \$0.201 | \$0.161 |  |  |  | Tier 3 | \$0.119 | \$0.095 |  |  |  |
| $N$ | Tier 4 | \$0.261 | \$0.281 |  |  |  | Tier 4 | \$0.119 | \$0.125 |  |  |  |
|  | Customer Charge | \$0.00 | \$5.00 |  |  |  | Customer Charge | \$0.00 | \$2.50 |  |  |  |
|  | E-8 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-8 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
|  | Summer |  |  |  |  |  | Summer |  |  |  |  |  |
|  | Tier 1 | \$0.152 | \$0.161 |  |  |  | Tier 1 | \$0.094 | \$0.117 |  |  |  |
|  | Tier 2 | \$0.156 | \$0.197 |  |  |  | Tier 2 | \$0.095 | \$0.138 |  |  |  |
|  | Tier 3 | \$0.235 | \$0.197 |  |  |  | Tier 3 | \$0.153 | \$0.138 |  |  |  |
|  | Tier 4 | \$0.295 | \$0.318 |  |  |  | Tier 4 | \$0.153 | \$0.168 |  |  |  |
|  | Winter |  |  | PG\&E Proposes Closing Schedule in 2016 |  |  | Winter |  |  | PG\&E Proposes Closing Schedule |  |  |
|  | Tier 1 | \$0.101 | \$0.126 |  |  |  | Tier 1 | \$0.059 | \$0.076 | in 2016 |  |  |
|  | Tier 2 | \$0.106 | \$0.163 |  |  |  | Tier 2 | \$0.060 | \$0.097 |  |  |  |
|  | Tier 3 | \$0.184 | \$0.163 |  |  |  | Tier 3 | \$0.102 | \$0.097 |  |  |  |
|  | Tier 4 | \$0.244 | \$0.283 |  |  |  | Tier 4 | \$0.102 | \$0.127 |  |  |  |
|  | Customer Charge | \$12.53 | \$12.53 |  |  |  | Customer Charge | \$10.02 | \$10.020 |  |  |  |


| E-TOU Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | E-tou Care rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summer |  |  |  |  |  | Summer |  |  |  |  |  |
| On-Peak |  |  | 0.304 | 0.301 | 0.298 | On-Peak |  |  | 0.197 | 0.195 | 0.194 |
| Off-Peak |  |  | 0.167 | 0.164 | 0.161 | Off-Peak |  |  | 0.109 | 0.107 | 0.105 |
| Winter |  |  |  |  |  | Winter |  |  |  |  |  |
| On-Peak |  |  | 0.168 | 0.165 | 0.162 | On-Peak |  |  | 0.109 | 0.107 | 0.105 |
| Off-Peak |  |  | 0.154 | 0.151 | 0.148 | Off-Peak |  |  | 0.100 | 0.098 | 0.096 |
| Customer Charge |  |  | \$10.00 | \$10.21 | \$10.42 | Customer Charge |  |  | \$5.00 | \$5.10 | \$5.21 |

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX B -2 

CARE EFFECTIVE DISCOUNT A SSUMING 0 \% GROWTH IN REVENUE REQUIREMENT AND 50\% BASELINE QUA NTITIES

| No of Customers | Non－CARE | Non－CARE Pct of Customers | CARE | CARE Pct of Customers | Total | Total Pct of Customers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | 1，213，962 | 36\％ | 551，029 | 43\％ | 1，764，992 | 38\％ |
| Tier 2 | 530，917 | 16\％ | 237，328 | 19\％ | 768，244 | 17\％ |
| Tier 3 | 1，000，480 | 30\％ | 345，568 | 27\％ | 1，346，047 | 29\％ |
| Tier 4 | 608，190 | 18\％ | 134，106 | 11\％ | 742，297 | 16\％ |
| Total | 3，353，549 | 100\％ | 1，268，031 | 100\％ | 4，621，580 | 100\％ |
| Customer Months | 41，554，094 |  | 14，119，521 |  | 55，673，615 |  |


| Billing Determinants（kWh）with 50\％Baseline Quantity | Non－CARE | Non－CARE Pct of Sales | CARE | CARE Pct of Sales | Total | Total Pct of Sales |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | 12，405，329，836 | 53\％ | 4，502，204，186 | 59\％ | 16，907，534，022 | 54\％ |
| Tier 2 | 2，529，969，079 | 11\％ | 843，648，428 | 11\％ | 3，373，617，506 | 11\％ |
| Tier 3 | 3，997，009，265 | 17\％ | 1，192，663，424 | 16\％ | 5，189，672，689 | 17\％ |
| Tier 4 | 4，628，745，597 | 20\％ | 1，057，709，208 | 14\％ | 5，686，454，805 | 18\％ |
| Total | 23，561，053，776 | 100\％ | 7，596，225，247 | 100\％ | 31，157，279，023 | 100\％ |


| Scenario 31 | Assumin $90 \%$ Growh in Revenue Re quirement and $50 \%$ Easeline Quantite |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Summer 2014 | Jan 2015 | Jan 2016 | Jan 2017 | Jan 2018 |  |
| Non－CARE |  |  |  |  |  |  |
| Minimum Bill Amount（\＄／mo） | \＄4．50 | \＄0．00 | \＄0．00 | \＄0．0才 |  | \＄0．00 |
| Basic Service Fee（\＄／mo） | \＄0．00 | \＄5．00 | \＄10．0中 | \＄10．2 |  | \＄10．4 |
| T－1 Rate（\＄／kWh） | \＄0．14707 | \＄0．14707 | \＄0．14707 | \＄0．15821 |  | \＄0．15589 |
| T－2 Rate（\＄／kWh） | \＄0．17028 | \＄0．18374 | \＄0．18374 | \＄0．18978 |  | \＄0．18706 |
| T－2＇Rate（\＄／kWh） | \＄0．24919 | \＄0．18374 | \＄0．18374 | \＄0．18978 |  | \＄0．18706 |
| T－3 Rate（\＄／kWh） | \＄0．30918 | \＄0．30418 | \＄0．24611 | \＄0．18978 |  | \＄0．18706 |
| CARE |  |  |  |  |  |  |
| Minimum Bill Amount | \＄3．60 | \＄0．00 | \＄0．00 | \＄0．00 |  | \＄0．00 |
| Basic Service Fee（\＄／mo） | \＄0．00 | \＄2．50 | \＄5．00 | \＄5．11 |  | \＄5．21 |
| T－1 Rate（\＄／kWh） | \＄0．09072 | \＄0．09700 | \＄0．10300 | \＄0．10837 |  | \＄0．10678 |
| T－2 Rate（\＄／kWh） | \＄0．10433 | \＄0．11800 | \＄0．12400 | \＄0．13008 |  | \＄0．12817 |
| T－2＇Rate（\＄／kWh） | \＄0．14802 | \＄0．11800 | \＄0．12400 | \＄0．13008 |  | \＄0．12817 |
| T－3 Rate（\＄／kWh） | \＄0．14802 | \＄0．14802 | \＄0．14802 | \＄0．13008 |  | \＄0．12817 |
| CARE Discount Estimates |  |  |  |  |  |  |
| CARE Revenue Collection at Non－CARE Rates | 1，430，006，029 | 1，428，622，794 | 1，437，799，137 | 1，443，637，35 | 6 | 1，427，741，60 |
| Total CARE Revenue Collection | 829，557，961 | 868，859， 52 | 943，389，42 | 25 962，454，4 | 84 | 950，868，${ }^{\text {，}}$ |
| CARE Discount（\＄） | 600，448，068 | 559，763， 7 | 494，409，11 | 12 481，183， | 71 | 476，872，8 |
| Effective CARE Discoun t | 44\％ | 41\％ | 36\％ | 35\％ |  | 35\％ |

## PACIFIC GAS AND ELECTRIC COMPANY

 APPENDIX B-3YEAR-TO-YEAR BILL COMPARISON USING PG\&E'S
STANDARD FORMAT: AT ILLUSTRATIVE RATES ASSUMING 0\% GROWTH IN REVENUE REQUIREMENT AND

50\% BASELINE QUANTITIES

Total Annual Bill Sumary by Rate Schedules
Comparison Between 2014 Sumer with Of RRQ Current 2.5 Rates
AND 2015 Sumer proposed 3.1 Rates using $50 \%$ BQ
Data From Yearly File(JAN 2011 - Dec 2011)

| $\begin{gathered} \text { LAST } \\ \text { RATE } \\ \text { SCHEDULE } \end{gathered}$ | count | ANNUAL TOTAL KWH | total annual currant bills | CURRENT <br> AVG RATE | total annual PROPOSED BILLS | PROPOSED AVG RATE | DIfference (PROPOSEDCURRENT) |  | ROPOSED(JRENT)/ URRENT | maX Difference | MIN DIFFERENCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E1 | 2,815,104 | 18,278,276,127 | \$3,633,089,241 | 0.19877 | \$3,595,688,391 | 0.19672 | \$-37,400,849 |  | 1.03\%) | \$105 | \$-10,785 |
| E1L | 1,156,472 | 7,576,011,970 | \$837,332,506 | 0.11052 | \$873,713,155 | 0.11533 | \$36,380,649 |  | 4.34\% | \$304 | \$-274 |
| B6 | 5,462 | 52,512,188 | \$10.879,795 | 0.20719 | \$10,778,216 | 0.20525 | \$-101,579 | $($ | 0.938) | \$147 | \$-1,901 |
| E6L | 379 | 6,078,576 | \$712,027 | 0.11714 | \$730,180 | 0.12012 | \$18,153 |  | 2.55\% | \$572 | \$-103 |
| E7 | 57.771 | 506,295,672 | \$112,173,586 | 0.18501 | \$122.726.657 | 0.20242 | \$10,553,071 |  | 9.41\% | \$3,584 | \$-2,416 |
| E7L | 7,757 | 84,873,446 | \$9,689,251 | 0.11416 | \$9,675,012 | 0.11399 | \$-14,239 | 1 | 0.15*) | \$1,170 | \$-1,325 |
| E8 | 43.911 | 675,567,529 | \$140,568,929 | 0.20808 | \$152,099,612 | 0.22514 | \$11,530,683 |  | 8.208 | \$16,081 | \$-2,192 |
| E8L | 8,692 | 136,763,391 | \$14,922,099 | 0.10911 | \$17,176,939 | 0.12560 | \$2,254,840 |  | 15.118 | \$10,328 | \$0 |
| Total | 4,095,548 | 27,416,378,899 | \$4,759,367,434 | 0.17360 | \$4,782,588,163 | 0.17444 | \$23,220,729 |  | 0.49\% | \$32,289 | \$-18,996 |

FOR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service


AND 2015 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
RES full service
Last rate schedulembil


AND 2015 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
RES full service

LAST RATE SCHEDULE=E6

|  |  | MONTHLY \$ <br> DIFFERENCE | BELOW - 20\% DECREASE | $-20--10 z$ <br> decrease | $-10--5 t$ <br> DECREASE | $-5--0.018$ <br> DECREASE | $-0.01-08$ <br> decrease | $0-0.018$ <br> increase | $0.01-58$ <br> INCREASE | $5-10 \%$ <br> increase | $10-208$ <br> INCREASE | ABOVE 20\% increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$-12.15 | 5 (0.18) | 26 (0.58) | 33 (0.68) | 154 (2.8\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $8 \%$ | \$-9.50 | 4 (0.18) | $11(0.28)$ | 23 (0.48) | 182 (3.38) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | \$-7.95 | $2(0.08)$ | 6 (0.1\%) | $29(0.58)$ | 184 (3.4\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 16\% | \$-6.74 | $2(0.08)$ | 7 (0.18) | 19(0.38) | 190(3.58) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 208 | \$-5.76 | 4 (0.18) | $3(0.18)$ | 15(0.38) | 195(3.6\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | \$-4.92 | 0 | 4 (0.18) | 12(0.28) | 204(3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | \$-4.11 | 0 | 3 (0.18) | 18 (0.38) | 201 (3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | \$-3.37 | 0 | 4 (0.1\%) | 14 (0.38) | 195 (3.68) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 368 | \$-2.64 | 0 | 1 (0.08) | $11(0.28)$ | 206 (3.88) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 408 | \$-2.08 | 0 | 1 (0.0\%) | 7(0.1\%) | 214 (3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 448 | \$-1.49 | 0 | 0 | 7 (0.18) | 210(3.8\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 48\% | \$-0.91 | 0 | 1 (0.0\%) | 0 | 216 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 52\% | \$-0.27 | 0 | 0 | 1(0.08) | 225 (4.1\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $56 \%$ | \$0.26 | 0 | 0 | 0 | 94(1.74) | 3 (0.1\%) | 8 (0.18) | 105 (1.9\%) | 0 | 0 | 0 |
|  | $60 \%$ | \$0.78 | 0 | 0 | 0 | 0 | 0 | 0 | 201(3.7\%) | 3 (0.18) | 15 (0.38) | 0 |
| $\infty$ | 64\% | \$1.35 | 0 | 0 | 0 | 0 | 0 | 0 | 215 (3.98) | 1(0.08) | $2(0.08)$ | 0 |
| $\omega$ | 68\% | \$1.90 | 0 | 0 | 0 | 0 | 0 | 0 | 202 (3.78) | 14 (0.38) | 3 (0.17) | 0 |
| 1 | $72 \%$ | \$2.39 | 0 | 0 | 0 | 0 | 0 | 0 | 185 (3.4\%) | 28 (0.5\%) | 5 (0.18) | 0 |
|  | $76 \%$ | \$2.98 | 0 | 0 | 0 | 0 | 0 | 0 | 149(2.78) | $53(1.08)$ | 16 (0.38) | $2(0.08)$ |
|  | 80\% | \$3.59 | 0 | 0 | 0 | 0 | 0 | 0 | 65 (1.2\%) | 121(2.28) | $22(0.48)$ | $9(0.28)$ |
|  | 84\% | \$4.20 | 0 | 0 | 0 | 0 | 0 | 0 | 19 (0.38) | 140 (2.6\%) | 50 (0.98) | 13 (0.28) |
|  | 88\% | \$4.85 | 0 | 0 | 0 | 0 | 0 | 0 | $9(0.28)$ | 96 (1.88) | $90(1.68)$ | 22 (0.48) |
|  | 92\% | \$5.37 | 0 | 0 | 0 | 0 | 0 | 0 | 6 (0.18) | 51(0.98) | 117(2.18) | 48 (0.9\%) |
|  | $96 \%$ | \$5.99 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (0.18) | 27(0.5\%) | 122(2.28) | 63 (1.2\%) |
|  | 100\% | \$12.22 | 0 | 0 | 0 | 0 | 0 | 0 | $4(0.18)$ | 31 (0.6\%) | 117(2.18) | 62 (1.1\%) |
|  | total |  | 17 | 67 | 189 | 2,670 | 3 | 8 | 1.165 | 565 | 559 | 219 |
|  |  |  | 0,3\% | 1.2\% | 3.5\% | 48.98 | 0.1\% | 0.1\% | 21.3\% | 10.3t | 10.2\% | 4.08 |
|  | cumulative |  | 17 | 84 | 273 | 2,943 | 2,946 | 2,954 | 4,119 | 4,684 | 5,243 | 5,462 |
|  |  |  | 0.37 | 1.5\% | 5.07 | 53.98 | 53.98 | 54.1\% | 75.4\% | 85.8\% | $96.0 \%$ | 100.0\% |

AND 2015 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$
for annual.
Data From Yearly File (JAN 2011 - Dec 2011)
RES full service


AND 2015 Summer proposed 3.1 Rates using 50\% RQ

## POR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011)
RBS full service


Data From Yeariy pile (JAN 2011 - Dec 2011)
RES full service

|  | $\begin{array}{cc} \$ \\ \mathrm{PCT} & \mathrm{D} \end{array}$ | MONTHLY \$ DIFFERENCE | BELOW - $20 \%$ DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 \frac{3}{2}$ <br> DECREASE | $-5--0.01 t$ decrease | $-0.01-08$ <br> DECREASE | $0-0.018$ <br> INCREASE | $0.01-5 \%$ <br> INCREASE | $5-10 \frac{2}{6}$ INCREASE | $10-20 \%$ <br> increase | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$-10.36 | 0 | 15(0.28) | 217(2.8\%) | 78 (1.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $8 \%$ | \$-7.65 | $2(0.08)$ | 1 (0.08) | 176 (2.38) | 131 (1.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | \$-5.95 | 0 | 0 | 107(1.48) | 208 (2.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 168 | \$-4.65 | 0 | 0 | 60(0.8\%) | 248(3.28) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $20 \%$ | \$-3.75 | 0 | 0 | 15(0.2\%) | 297(3.8\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | \$-3.05 | 0 | 0 | $4(0.18)$ | 306 (3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | \$-2.44 | 1 (0.08) | 1 (0.0\%) | 0 | 307(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | \$-1.92 | $1(0.08)$ | 0 | 0 | 308 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 36\% | \$-1.40 | 1 (0.0\%) | $2(0.08)$ | $2(0.08)$ | $307(4.08)$ | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $40 \%$ | \$-0.91 | 0 | 1 (0.08) | 1 (0.08) | 308 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $44 \%$ | \$-0.42 | 0 | 0 | 0 | 311 (4.08) | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 |
|  | 48\% | \$0.03 | 0 | 0 | 3 (0.08) | 281 (3.6\%) | 5 (0.17) | 4 (0.18) | 15(0.28) | 0 | 0 | 0 |
|  | $52 \%$ | \$0.59 | 0 | 0 | 0 | 0 | 0 | 0 | 311 (4.08) | 1 (0.08) | 0 | 0 |
|  | 56 \% | \$1.14 | 0 | 0 | 0 | 0 | 0 | 0 | 304 (3.9\%) | $1(0.08)$ | 3 (0.08) | 1(0.08) |
|  | $60 \%$ | \$1.63 | 0 | 0 | 0 | 0 | 0 | 0 | 305(3.9\%) | $2(0.08)$ | $3(0.08)$ | 1 (0.08) |
| W | 648 | \$2.17 | 0 | 0 | 0 | 0 | 0 | 0 | 274 (3.58) | $30(0.48)$ | $5(0.18)$ | $1(0.08)$ |
| $\omega$ | 68\% | \$2.64 | 0 | 0 | 0 | 0 | 0 | 0 | 192 (2.5\%) | 102 (1.38) | 11 (0.18) | 5 (0.1\%) |
| $\stackrel{1}{1}$ | 72\% | \$3.03 | 0 | 0 | 0 | 0 | 0 | 0 | 98 (1.38) | 129 (1.78) | $52(0.78)$ | 34 (0.48) |
| $\checkmark$ | $76 \%$ | \$3.34 | 0 | 0 | 0 | 0 | 0 | 0 | 63 (0.8\%) | 107(1.48) | 122 (1.68) | 24 (0.38) |
|  | 80\% | \$3.67 | 0 | 0 | 0 | 0 | 0 | 0 | $51(0.78)$ | 109 (1.48) | 144(1.9\%) | 17(0.2\%) |
|  | 84\% | \$3.98 | 0 | 0 | 0 | 0 | 0 | 0 | 43 (0.6\%) | 108 (1.4\%) | 139 (1.88) | 5 (0.1*) |
|  | 88\% | . \$4.39 | 0 | 0 | 0 | 0 | 0 | 0 | 49 (0.68) | 128 (1.78) | 122 (1.68) | 11 (0.18) |
|  | 92雱 | \$5.04 | 0 | 0 | 0 | 0 | 0 | 0 | $42(0.5 \%)$ | 146 (1.9\%) | 109(1.48) | 14 (0.2\%) |
|  | $96 \%$ | \$6.28 | 0 | 0 | 0 | 0 | 0 | 0 | 36 (0.58) | 172 (2.2\%) | 83 (1.18) | 14 (0.28) |
|  | $100 \%$ | \$97.47 | 0 | 0 | 0 | 0 | 0 | 0 | 60 (0.8\%) | 154 (2.08) | $81(1.08)$ | 15 (0.2\%) |
|  | total |  | 5 | 20 | 585 | 3,090 | 5 | 4 | 1,843 | 1,189 | 874 | 142 |
|  |  |  | 0.18 | 0.3\% | $7.5 \%$ | 39.8\% | $0.1 \%$ | 0.17 | 23.88 | 15.3\% | 11.3\% | 1.8\% |
|  | cumulative |  | 5 | 25 | 610 | 3.700 | 3,705 | 3,709 | 5,552 | 6,741 | 7.615 | 7,757 |
|  |  |  | 0.18 | 0.37 | 7.98 | 47.7\% | $47.8 \%$ | 47.8\% | 71.68 | 86.9\% | 98.2\% | $100.0 \%$ |

AND 2015 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
RES full service
LaST RATE SCHEDULE=E8

|  | $\begin{gathered} \$ \\ \mathrm{PCT} \end{gathered}$ | MONTHLY $\$$ DIFFERENCE | BELOW -20\% decrease | $-20--10 \%$ DECREASE | $-10--5 \%$ <br> DECREASE | $-5--0.01 \%$ decrease | $\begin{gathered} -0.01-08 \\ \text { DECREASE } \end{gathered}$ | $0-0.01 \%$ <br> increase | $0.01-5 \%$ <br> INCREASE | $\begin{aligned} & 5-108 \\ & \text { INCREASE } \end{aligned}$ | $10-208$ <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $4 \%$ | \$5.27 | 0 | 5 (0.08) | 60(0.18) | 205 (0.5\%) | 0 | 33 (0.1\%) | 636 (1.4\%) | 666 (1.5\%) | 151(0.3\%) | 0 |
|  | $8 \%$ | \$6.62 | 0 | 0 | 0 | 0 | 0 | 0 | $51.11 .28)$ | 1,002 (2.38) | 250(0.6\%) | 0 |
|  | 12\% | \$7.57 | 0 | 0 | 0 | 0 | 0 | 0 | 191 (0.4\%) | 1,320(3.08) | 253 (0.6\%) | 0 |
|  | $16 \%$ | \$8.45 | 0 | 0 | 0 | 0 | 0 | 0 | 136 (0.3\%) | 1,248(2.8\%) | 367 (0.88) | 0 |
|  | 20 * | \$9.33 | 0 | 0 | 0 | 0 | 0 | 0 | 82 (0.28) | 1,383(3.18) | 289 (0.78) | 0 |
|  | 24\% | \$10.32 | 0 | 0 | 0 | 0 | 0 | 0 | 54 (0.18) | 1,501(3.4\%) | 223 (0.5\%) | 0 |
|  | $28 \%$ | \$11.37 | 0 | 0 | 0 | 0 | 0 | 0 | 48 (0.18) | 1,511(3.4\%) | 179 (0.4\%) | 0 |
|  | 32\% | \$12.41 | 0 | 0 | 0 | 0 | 0 | 0 | 33 (0.18) | 1,520(3,5\%) | 211(0.5\%) | 0 |
|  | 36\% | \$13.35 | 0 | 0 | 0 | 0 | 0 | 0 | 17(0.08) | 1,487(3.48) | 244 (0.6\%) | 0 |
|  | $40 \%$ | \$14.27 | 0 | 0 | 0 | 0 | 0 | 0 | 10 (0.04) | 1,489(3.4\%) | 259 (0.68) | 0 |
|  | 44\% | \$15.12 | 0 | 0 | 0 | 0 | 0 | 0 | $5(0.08)$ | 1,520(3.5\%) | 238 (0.5\%) | 0 |
|  | 48\% | \$15.92 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 1,501(3.4\%) | 245 (0.6\%) | 0 |
|  | 52\% | \$16.78 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 1,526(3.5\%) | 236 (0.58) | 0 |
|  | 56\% | \$17.69 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.08) | 1,527(3.5\%) | 218 (0.58) | 0 |
|  | $60 \%$ | \$18.74 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.08) | 1,560(3.6\%) | 190 (0.48) | 0 |
| W | 64\% | \$19.98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,623(3.7\%) | 135 (0.38) | 0 |
| $\omega$ | 68\% | \$21.46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,629(3.78) | 132(0.38) | 0 |
| 1 | 72\% | \$23.14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,649(3.88) | $103(0.2 \%)$ | 0 |
| $\infty$ | 76\% | \$25.37 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.08)$ | 1,691(3.98) | $71(0.2 \%)$ | 0 |
|  | 80\% | \$28.01 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | $2(0.08)$ | 1,680(3.8\%) | $71(0.28)$ | 0 |
|  | 84\% | \$31.57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,664(3.8\%) | $89(0.2 \%)$ | 0 |
|  | 88\% | \$36.63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,669(3.8\%) | $87(0.28)$ | 0 |
|  | 92\% | \$44.69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,600(3.6\%) | 155 (0.4\%) | 0 |
|  | 96\% | \$62. 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,344(3.1\%) | 412 (0.98) | 0 |
|  | 100\% | 1340.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 607(1.48) | 1,149 (2.6\%) | 0 |
|  | total |  | 0 | 5 | 60 | 205 | 0 | 33 | 1,733 | 35,917 | 5,958 | 0 |
|  |  |  | 0.0\% | 0.08 | 0.18 | $0.5 \%$ | 0.0\% | 0.18 | 3.98 | 81.8\% | $13.6 \%$ | 0.07 |
|  | cumul | ative | 0 | 5 | 65 | 270 | 270 | 303 | 2,036 | 37,953 | 43,911 | 43,911 |
|  |  | - | 0.08 | $0.0 \%$ | $0.1 \%$ | $0.6 \%$ | 0.6\% | $0.7 \%$ | 4.68 | 86.4\% | 100.0\% | 100.0\% |
|  | AVG.M | O DIFF. |  | \$-133.4 | \$-36.5 | \$-8.1 | . | \$0.0 | \$6.1 | \$20.4 | \$38.6 |  |

AND 2015 Sumer proposed 3.1 Rates using $50 \% \mathrm{BQ}$

> FOR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011
RES full service

|  | $\begin{gathered} \$ \\ \mathrm{PCT} \end{gathered}$ | MONTHLY $\$$ <br> DIfFerence | BELOW -20\% DECREASE | $\begin{gathered} -20--10 \% \\ \text { DECREASE } \end{gathered}$ | $-10--5 \%$ <br> decrease | $\begin{aligned} & -5 \cdots-0.018 \\ & \text { DECREASE } \end{aligned}$ | $\begin{gathered} -0.01-0 \% \\ \text { DECREASE } \end{gathered}$ | $\begin{gathered} 0-0.018 \\ \text { INCREASE } \end{gathered}$ | $\begin{aligned} & 0.01-5 z \\ & \text { INCREASE } \end{aligned}$ | $5-10 \%$ <br> increase | $10-20 \%$ <br> increase | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $4 \%$ | \$7.92 | 0 | 0 | 0 | 0 | 0 | $4(0.08)$ | $2(0.08)$ | 8 (0.17) | 322 (3.7\%) | 12(0.7\%) |
|  | $8 \%$ | \$9.10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 292 (3.48) | 55 (0.6\%) |
|  | 12\% | \$10.19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 288(3.38) | 62(0.7\%) |
|  | 16\% | \$11.19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 293(3.4\%) | 53(0.6\%) |
|  | 208 | \$12.20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 304 (3.5\%) | 47(0.5\%) |
|  | 24\% | \$13.11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 283 (3.38) | $61(0.7 \%)$ |
|  | 28\% | \$14.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 288 (3.38) | 65 (0.7\%) |
|  | 32\% | \$15.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 287(3.38) | 57(0.78) |
|  | 36\% | \$15.90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 299 (3.48) | $49(0.68)$ |
|  | 40\% | \$16.83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $301(3.58)$ | 53 (0.68) |
|  | 44\% | \$17.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 276(3.2\%) | 65 (0.7\%) |
|  | $48 \%$ | \$18.25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 293(3.4\%) | 57(0.78) |
|  | $52 \%$ | \$18.93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 315 (3.6\%) | $34(0.4 \%)$ |
|  | $56 \%$ | \$19.73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 299 (3.48) | 46(0.5\%) |
|  | 60\% | \$20.60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 311 (3.68) | $38(0.4 \%)$ |
| $\infty$ | $64 \%$ | \$21.68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 305 (3.5\%) | 41 (0.5\%) |
| $\stackrel{1}{\omega}$ | 688 | \$22.63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 304(3.58) | 44 (0.5\%) |
| 1 | 72\% | \$23.84 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 0 | 0 | 295 (3.48) | 57(0.78) |
| 6 | 76\% | \$25.17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 291 (3.3\%) | 53 (0.6\%) |
|  | 80\% | \$27.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 315 (3.68) | $31(0.48)$ |
|  | 84\% | \$29.53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 312 (3.68) | 35 (0.48) |
|  | 88\% | \$32.34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 305 (3.58) | 44 (0.5\%) |
|  | 92\% | \$36.71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 318 (3.7\%) | 28 (0.38) |
|  | $96 \%$ | \$45.75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 336(3.98) | 12 (0.17) |
|  | 100\% | \$860.64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 340 (3.98) | 7 (0.18) |
|  | TOTAL |  | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 8 | 7,572 | 1,106 |
|  |  |  | 0.08 | $0.0 \%$ | 0.07 | $0.0 \%$ | 0.0\% | 0.0\% | 0.0\% | $0.1 \%$ | 87.1\% | 12.7\% |
|  | cumula | Ative | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 14 | 7.586 | 8,692 |
|  |  |  | 0.08 | $0.0 \%$ | 0.04 | 0.08 | 0.08 | 0.0\% | 0.18 | 0.2\% | 87.3\% | 100.08 | Total Annual Bill Summary by Rate Schedules

Comparison Between 2015 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$ AND 2016 Summer proposed 3.1 Rates using $50 \%$ BQ Data From Yearly File (JAN 2011 - Dec 2011)

| LAST <br> RATE SChedule | COUNT | ANNUAL TOTAL KWH | TOTAL ANNUAL Current bills | CURRENT <br> AVG RATE | total annual PROPOSED BILLS | PROPOSED <br> avg Rate | DIFFERENCE (PROPOSEDCURRENTT) |  | ROPOSED- <br> RRENT) / <br> URRENT | MAX DIFFERENCE | MIN DIFFERENCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E1 | 2,815,104 | 18,278,276,127 | \$3,595,688,391 | 0.19672 | \$3,557,246,592 | 0.19462 | \$-38,441,800 | ( | 1.07\%) | \$67 | \$-124,384 |
| E1L | 1,156,472 | 7,576,011,970 | \$873,713,155 | 0.11533 | \$945,457,532 | 0.12480 | \$71,744,376 |  | 8.218 | \$393 | \$17 |
| E6 | 5.462 | 52,512,188 | \$10,778,216 | 0.20525 | \$9,954,734 | 0.18957 | \$-823,482 | ( | 7.64\%) | \$62 | \$-28,339 |
| E6L | 379 | 6,078,576 | \$730,180 | 0.12012 | \$757,612 | 0.12464 | \$27,432 |  | 3.768 | \$286 | \$28 |
| E7 | 57,771 | 606,295,672 | \$122,726,657 | 0.20242 | \$116,373,691 | 0.19194 | \$-6,352,966 | 1 | $5.188)$ | \$82 | \$-11,409 |
| E7L | 7,757 | 84,873,446 | \$9,675,012 | 0.11399 | \$10,293,769 | 0.12128 | \$618,757 |  | 6.408 | \$355 | \$21 |
| E8 | 43,911 | 675,567,529 | \$152,099,612 | 0.22514 | \$137, 917.107 | 0.20415 | \$-14,182,505 | 1 | 9.32\%) | \$185 | \$-28,803 |
| E8L | 8,692 | 136,763,391 | \$17,176,939 | 0.12560 | \$17,725,997 | 0.12961 | \$549,058 |  | $3.20 \%$ | \$340 | \$0 |
| total | 4,095,548 | 27,416,378,899 | \$4,782,588,163 | 0.17444 | \$4,795,727,035 | 0.17492 | \$13,138,872 |  | $0.27 \%$ | \$1,770 | \$-192,870 |

AND 2016 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$

> FOR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service
LAST RATE SCHEDULE=E1

|  | $\begin{gathered} \$ \\ \text { PCT } \end{gathered}$ | MONTHLY $\$$ <br> difference | BELON -20\% DECREASE | $-20--10 \%$ <br> decrease | $-10--5 \%$ <br> DECREASE | $-5--0.018$ <br> decrease | $-0.01-0 \%$ <br> DECREASE | $0-0.01 \%$ <br> INCREASE | $0.01-58$ <br> increase | $5-10 \%$ <br> increase | $10-20 z$ <br> increase | ABOVE $20 \%$ increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | -27.75 | 0 | 99.281(3.58) | 13,353(0.54) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $8 \%$ | -16.63 | 0 | 8.423(0.38) | 104,227(3.78) | 20(0.0\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | -10.66 | 0 | 29 (0.08) | 108,925(3.98) | 3,718(0.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $16 \%$ | \$-6.61 | 0 | 0 | 43,683(1.68) | 69,007(2.58) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 208 | \$-3.60 | 0 | 0 | 302 (0.08) | 112,123(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24. | \$-1.25 | 0 | 0 | 3 (0.08) | 112,918(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | \$0.56 | 0 | 0 | 0 | 73,364(2.68) | 859 (0.08) | 855 (0.0\%) | 37,151(1.38) | 0 | 0 | 0 |
|  | 328 | \$1.98 | 0 | 0 | 0 | $\bigcirc$ | 0 | 0 | 112,888 (4.08) | 7(0.0\%) | 0 | 0 |
|  | 36\% | \$3.06 | 0 | 0 | 0 | 0 | 0 | 0 | 111, 750 (4.08) | 712 (0.08) | $7(0.08)$ | 0 |
|  | $40 \%$ | \$3.86 | 0 | 0 | 0 | 0 | 0 | 0 | 105,536(3.78) | 8,323(0.38) | 214 (0.08) | $2(0.08)$ |
|  | 44\% | \$4.41 | 0 | 0 | 0 | 0 | 0 | 0 | 72,079 (2.68) | 40.282(1.4\%) | 991 (0.08) | 40(0.08) |
|  | 48\% | \$4.76 | 0 | 0 | 0 | 0 | 0 | 0 | 35,776(1.38) | 73,245(2.6\%) | 2,652(0.18) | 125 (0.08) |
|  | 52\% | \$4.94 | 0 | 0 | 0 | 0 | 0 | 0 | 16,730(0.68) | 141,347(5.08) | 64,218(2.38) | 26,905(1.0\%) |
|  | 60\% | \$4.97 | 0 | 0 | 0 | 0 | 0 | 0 | 20,129(0.78) | 203,198(7.28) | 163,102(5.8\%) | 74,036(2.68) |
|  | $76 \%$ | \$4.98 | 0 | 0 | 0 | 0 | 0 | 0 | 16,390(0.68) | 176.498(6.36) | 152,137(5.48) | 71,253(2.58) |
| $\square_{1}^{\infty}$ | 92\% | \$5.00 | 0 | 0 | 0 | 0 | 0 | 0 | 13,040(0.58) | 133,352(4.78) | 116.317(4.1\%) | 49,501(1.8\%) |
| $\omega$ | $100 \%$ | \$5.14 | 0 | 0 | 0 | 0 | 0 | 0 | 592 (0.08) | 7.894(0.38) | 9,875 (0.4\%) | 5,720(0.28) |
| $\rightarrow$ | total |  | 0 | 107,733 | 270,493 | 371,150 | 859 | 855 | 542,061 | 784,858 | 509,513 | 227.582 |
|  |  |  | 0.0\% | 3.8\% | 9.6\% | 13.2\% | $0.0 \%$ | 0.08 | 19.3\% | 27.9\% | 18.18 | 8.17 |
| cumulative |  |  | 0 | 107,733 | 378,226 | 749,376 | 750,235 | 751,090 | 1293151 | 2078009 | 2587522 | 2815104 |
|  |  |  | 0.0\% | 3.8\% | 13.4\% | 26.6\% | 26.78 | $26.7 \%$ | 45.9\% | 73.8\% | 91.9\% | $100.0 \%$ |
|  | AVG.MO DIFF. |  |  | \$-58.4 | \$-16.6 | \$-4.0 | \$-0.0 | \$0.0 | \$3.0 | \$4.9 | \$5.0 | \$5.0 |

AND 2016 Summer proposed 3.1 Rates using 50\% BQ
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011
RES full service

|  | $\begin{gathered} \$ \\ \mathrm{PCT} \end{gathered}$ | MONTHLY \$ <br> DIFFERENCE | BELOF - $20 \%$ DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 \%$ <br> DECREASE | $-5--0.01 \%$ <br> DECREASE | $\begin{gathered} -0.01-0 \% \\ \text { DECREASE } \end{gathered}$ | $0-0.01 \%$ <br> INCREASE | $0.01-5 \%$ INCREASE | $\begin{gathered} 5-10 \% \\ \text { INCREASE } \end{gathered}$ | $10-20 z$ <br> increase | ABOVE 20\% increase |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$3.29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $6(0.08)$ | $62(0.08)$ | 47.482(4.18) |
|  | 8\% | \$3.54 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | $9(0.08)$ | 32,642(2.88) | 13,853(1.28) |
|  | 12\% | \$3.74 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.08) | $29(0.08)$ | 46,894 (4.18) | 0 |
|  | 16\% | \$3.91 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (0.08) | $30(0.08)$ | 44,572 (3.97) | 0 |
|  | 208 | \$4.08 | 0 | 0 | 0 | 0 | 0 | 0 | 4(0.08) | $58(0.08)$ | 47,429(4.18) | 0 |
|  | 24\% | \$4.24 | 0 | 0 | 0 | 0 | 0 | 0 | 6(0.08) | 121 (0.0\%) | 47,136(4.18) | 0 |
|  | 28\% | \$4.39 | 0 | 0 | 0 | 0 | 0 | 0 | $9(0.08)$ | 253(0.08) | 44,550(3.98) | 0 |
|  | 32\% | \$4.54 | 0 | 0 | 0 | 0 | 0 | 0 | $19(0.08)$ | 516 (0.0\%) | 44,535 (3.98) | 0 |
|  | 36\% | \$4.70 | 0 | 0 | 0 | 0 | 0 | 0 | $45(0.08)$ | 1,325(0.18) | 47,471 (4.18) | 0 |
|  | $40 \%$ | \$4.85 | 0 | 0 | 0 | 0 | 0 | 0 | 62(0.08) | 2,784 (0.28) | 43,428(3.88) | 0 |
|  | 44\% | \$4.99 | 0 | 0 | 0 | 0 | 0 | 0 | 202 (0.08) | 6,512(0.68) | 38,568(3.38) | 0 |
|  | 48\% | \$5.11 | 0 | 0 | 0 | 0 | 0 | 0 | 564 (0.18) | 15,792(1.48) | 28,341(2.58) | 0 |
|  | 528 | \$5.18 | 0 | 0 | 0 | 0 | 0 | 0 | 7,888(0.78) | 29,543(2.6\%) | 14.768(1.38) | 0 |
|  | $56 \%$ | \$5.35 | 0 | 0 | 0 | 0 | 0 | 0 | 171(0.08) | 8,243 (0.78) | 32,976(2.98) | 0 |
|  | $50 \%$ | \$5.54 | 0 | 0 | 0 | 0 | 0 | 0 | 111 (0.0\%) | 21,770(1.98) | 24,655(2.18) | 0 |
|  | 64\% | \$5.72 | 0 | 0 | 0 | 0 | 0 | 0 | 187(0.08) | 37,466(3.28) | 7.714(0.78) | 0 |
| $\omega$ | 68\% | \$5.90 | 0 | 0 | 0 | 0 | 0 | 0 | 392 (0.08) | 43,343(3.78) | 3,744(0.38) | 0 |
| $\xrightarrow[\sim]{4}$ | 72\% | \$6.05 | 0 | 0 | 0 | 0 | 0 | 0 | 926(0.18) | 42,107(3.68) | 2,027(0.28) | 0 |
| $N$ | 76\% | \$6.12 | 0 | 0 | 0 | 0 | 0 | 0 | 9,487(0.8\%) | 35,949(3.18) | $381(0.08)$ | 0 |
|  | 80\% | \$6.34 | 0 | 0 | 0 | 0 | 0 | 0 | 2,604(0.2\%) | 44,152 (3.88) | 40(0.08) | 0 |
|  | $84 \%$ | \$6.56 | 0 | 0 | 0 | 0 | 0 | 0 | 3,857(0.38) | 41,847(3.67) | 0 | 0 |
|  | 88\% | \$6.77 | 0 | 0 | 0 | 0 | 0 | 0 | 3,469(0.38) | 44,192(3.89) | 0 | 0 |
|  | 92\% | \$6.97 | 0 | 0 | 0 | 0 | 0 | 0 | 13,657(1.28) | 32,337(2.88) | 0 | 0 |
|  | 96\% | \$7.78 | 0 | 0 | 0 | 0 | 0 | 0 | 16,872(1.58) | 28,037(2.48) | 0 | 0 |
|  | 100\% | \$32.77 | 0 | 0 | 0 | 0 | 0 | 0 | 6,338(0.58) | 39,805 (3.48) | 0 | 0 |
| TOTAL |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 66,978 | 476,225 | 551,933 | 61,335 |
|  |  |  | 0.0\% | 0.08 | 0.07 | 0.0\% | 0.0\% | $0.0 \%$ | 5.8\% | 41.28 | 47.7\% | 5.3\% |
| cumulative |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 66,978 | 543,204 | 1095137 | 1156472 |
|  |  |  | 0.08 | 0.08 | 0.08 | 0.0\% | 0.08 | 0.08 | $5.8 \%$ | $47.0 \%$ | 94.7\% | $100.0 \%$ |

Comparison Between 2016 Sumner proposed 3.1 Rates using $50 \%$ BQ
AND 2017 Summer proposed 3.1 Rates using $50 \%$ BQ
Data From Yearly file (JAN 2011 - Dec 2011)

| LAST <br> RATE SChedule | COUNT | ANNUAL TOTAL Kwh | TOTAL ANNUAL CURRENT BILLS | CURRENT <br> avg rate | total annual PROPOSED BILLS | PROPOSED <br> aVg Rate | DIFFERENCE (PROPOSEDCURRENT) |  | RROROSEDURRENT)/ CURREATT | MAX DIFFERENCE | MIN DIFFERENCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E1 | 2,815,104 | 18,278,276,127 | \$3,557,246,592 | 0.19462 | \$3,507,615,367 | 0.19190 | \$-49,631,225 | 1 | 1.40\%) | \$1,258 | \$-120,649 |
| E1L | 1,156,472 | 7,576,011,970 | \$945,457,532 | 0.12480 | \$960,782,122 | 0.12682 | \$15, 324,590 |  | 1.62\% | \$319 | \$-3.441 |
| E6 | 5,462 | 52,512,188 | \$9,954,734 | 0.18957 | \$9,160,205 | 0.17444 | \$-794,529 | 1 | 7.98\%) | \$338 | \$-27,475 |
| E6L | 379 | 6,078,576 | \$757,612 | 0.12464 | \$714,814 | 0.11760 | \$-42,798 | 1 | 5.65\%) | \$203 | \$-2,203 |
| E7 | 57,771 | 606,295,672 | \$116,373,691 | 0.19194 | \$211,073,156 | 0.18320 | \$-5,300,535 | $($ | 4.55\%) | \$532 | \$-11,058 |
| E7L | 7,757 | 84,873,446 | \$10,293,769 | 0.12128 | \$10,315,854 | 0.12154 | \$22,084 |  | 0.21\% | \$214 | \$-3,085 |
| E8 | 43,911 | 675,567,529 | \$137, 917,107 | 0.20415 | \$126,528,076 | 0.18729 | \$-11,389,032 | 1 | 8. 26\%) | \$669 | \$-28,773 |
| E8L | 8,692 | 136,763,391 | \$17,725,997 | 0.12961 | \$17,432,001 | 0.12746 | \$-293,995 |  | 1.66\%) | \$277 | \$-9,109 |
| TOTAL | 4,095,548 | 27,416,378,899 | \$4,795,727,035 | 0.17492 | \$4,743,621,594 | 0.17302 | \$-52,105,440 |  | 1.09\%) | \$3,809 | \$-205, 793 |

AND 2017 Summer proposed 3.1 Rates using $50 \%$ BQ

> FOR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service


Data From Yearly File(Jan 2011 - Dec 2011)
RES full service

- Last rate schedule=bil


Comparison Between 2017 Summer proposed 3.1 Rates using $50 \%$ BQ
AND 2018 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$
Data From Yearly File (JAN 2011 - Dec 2011)


AND 2018 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$

## FOR ANMUAL

Data From Yearly File (JAN 2011 - Dec 2011)
RES full service

|  |  |  |  |  | -10- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MONTHLY | BELOW -20\% | -20--10\% | -5才 | -5 - -0.01\% | -0.01-0\% | 0-0.01\% | 0.01-5\% | 5-10\% | 10-20\% | AbOVE $20 \%$ |
|  | PCT D | difference | decrease | decrande | decrease | decrrase | DECREASE | incrbase | increase | increase | increase | increase |
|  | 48 | -3.06 | 0 | 0 | 0 | 113,360(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 8\% | -2.46 | 0 | 0 | 0 | 114,090(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 128 | -2.13 | 0 | 0 | 0 | 112,307(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 16\% | -1.89 | 0 | 0 | 0 | 113,211(4.0\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 208 | -1.70 | 0 | 0 | 0 | 114,114(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | -1.54 | 0 | 0 | 0 | 115,667(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | -1.41 | 0 | 0 | 0 | 109.376(3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | -1.29 | 0 | 0 | 0 | 113,422(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 368 | -1.18 | 0 | 0 | 0 | 115,423(4.16) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $40 \%$ | -1.08 | 0 | 0 | 0 | 113,789(4.0\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 448 | \$-.99 | 0 | 0 | 0 | 109,741(3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $48 \%$ | \$-. 90 | 0 | 0 | 0 | 116,317(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 52\% | \$-.82 | 0 | 0 | 0 | 108,187(3.88) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $56 \%$ | \$-. 74 | 0 | 0 | 0 | 112,340(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
| ¢ | $60 \%$ | \$-.66 | 0 | 0 | 0 | 115,220(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\omega$ | 648 | \$-. 58 | 0 | 0 | 0 | 117.795(4.28) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\xrightarrow{\stackrel{1}{\square}}$ | 68\% | \$-.51 | 0 | 0 | 0 | 103,366(3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\checkmark$ | 728 | \$-.43 | 0 | 0 | 0 | 118,788(4.2\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 758 | \$-. 36 | 0 | 0 | 0 | 103.392(3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 808 | \$-.28 | 0 | 0 | 0 | 116,132(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 848 | \$-. 20 | 0 | 0 | 0 | 112,043(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 88\% | \$-.11 | 0 | 0 | 0 | 116,550(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $92 \%$ | \$-.01 | 0 | 0 | 0 | 112,554(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $95 \%$ | \$0.12 | 0 | 0 | 0 | 2,092(0.13) | 2,969(0.18) | 3,041(0.18) | 103,159(3.78) | 0 | 0 | 0 |
|  | $100 \%$ | \$0.31 | 0 | 0 | 0 | 0 | 0 | 0 | 106,659 (3.8\%) | - | 0 | 0 |
|  | TOTAL |  | 0 | 0 | 0 | 2599276 | 2,969 | 3,041 | 209,818 | $\bigcirc$ | 0 | 0 |
|  |  |  | 0.0\% | $0.0 \%$ | $0.0 \%$ | 92.3\% | 0.18 | 0.18 | 7.5\% | $0.0 \%$ | 0.08 | 0.08 |
|  | CUMULA | ative | 0 | 0 | 0 | 2599276 | 2602245 | 2605286 | 2815104 | 2815104 | 2815104 | 2815104 |
|  |  |  | 0.0\% | 0.0\% | 0.0\% | 92.3\% | 92.4\% | 92.5* | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | AVG.mo | O DIFF. | . | - | - | \$-1.2 | \$-0.0 | \$0.0 | \$0.1 |  |  |  |

AND 2018 Summer proposed 3.1 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL

Data From Yearly File (JAN 2011 - Dec 2011
pes full service

|  |  |  |  |  | -10 - |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ M | monthly \$ | BELOW -20\% | -20--10\% | -5\% | -5--0.018 | -0.02-0\% | 0-0.01\% | 0.01-5\% | 5-10\% | $10-208$ | Above $20 \%$ |
|  | PCT D | DIfFERENCE | decrease | decrease | decrbase | decrease | decrease | increase | increase | increase | increase | increase |
|  | $4 \%$ | -2.19 | 0 | 0 | 0 | 46,822(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 8\% | -1.73 | 0 | 0 | 0 | 46,749 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | -1.49 | 0 | 0 | 0 | 45,947(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 16\% | -1.32 | 0 | 0 | 0 | 48,773(4,28) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $20 \%$ | -1.20 | 0 | 0 | 0 | 45,342(3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 248 | -1.10 | 0 | 0 | 0 | 44.487(3.8*) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | -1.01 | 0 | 0 | 0 | 46,934(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | \$-. 93 | 0 | 0 | 0 | 47.052(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 36\% | \$-.86 | 0 | 0 | 0 | 45,507(3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $40 \%$ | \$-. 79 | 0 | 0 | 0 | 49,567(4.3\%) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $44 \%$ | \$-. 73 | 0 | 0 | 0 | 45,946 (4.08) | 0 | - | 0 | $\bigcirc$ | 0 | 0 |
|  | 48\% | \$-.67 | 0 | 0 | 0 | 48,289(4.28) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 52\% | \$-. 62 | 0 | 0 | 0 | 42,700(3.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $56 \%$ | \$-.57 | 0 | 0 | 0 | 44,231(3.8\%) | 0 | 0 | 0 | 0 | 0 | 0 |
| \% | $60 \%$ | \$-.52 | 0 | 0 | 0 | 45,724 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\omega$ | 64\% | \$-.47 | 0 | 0 | 0 | 47.237(4.18) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\xrightarrow{\square}$ | 68\% | \$-.42 | 0 | 0 | 0 | 48,615 (4.28) | 0 | 0 | 0 | 0 | 0 | 0 |
| $\infty$ | 72\% | \$-.37 | 0 | 0 | 0 | 49,433(4.38) | 0 | 0 | c | 0 | 0 | 0 |
|  | $76 \%$ | \$-.33 | 0 | 0 | 0 | 40.354 (3.58) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $80 \%$ | \$-.28 | 0 | 0 | 0 | 50,691(4.48) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 84\% | \$-. 23 | 0 | 0 | 0 | 49,176(4.38) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 88\% | \$-.18 | 0 | 0 | 0 | 46,816(4,08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 92\% | \$-. 13 | 0 | 0 | 0 | 42,127(3.68) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 96\% | \$-.06 | 0 | 0 | 0 | 46,776(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 100\% | \$0.15 | 0 | 0 | 0 | 22,804 (2.08) | 416(0.0\%) | 390 (0.08) | 17.567(1.5\%) | 0 | 0 | 0 |
|  | total |  | 0 | 0 | 0 | 1138099 | 416 | 390 | 17.567 | 0 | 0 | 0 |
|  |  |  | 0.08 | 0.0\% | 0.0\% | 98.4\% | 0.0\% | $0.0 \%$ | 1.5\% | $0.0 \%$ | 0.0\% | 0.08 |
|  | Cumula | ative | 0 | 0 | 0 | 1138099 | 1138515 | 1138905 | 1156472 | 1155472 | 1156472 | 1156472 |
|  |  |  | 0.08 | 0.08 | 0.0\% | 98.4\% | 98.4\% | 98.58 | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | AVG.MO | O DIFF. | . | - | . | \$-0.8 | \$-0.0 | \$0.0 | \$0.1 |  |  |  |

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX B -4 

BILL COMPARISON US ING ENERGY DIVISION FORMAT: AT ILLUSTRATIVE RATES A SSUMING 0 \% GROWTH IN REVENUE REQUIREMENT AND 50\% BASELINE QUANTITIES

PG\&E is in the process of completing the bill comparison using the Energy Division approved format for Appendices A-4, B-4, and C-4 and will provide these appendices by March 7, 2014, as a separate exhibit to the Supplemental Filing.

## PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX C-1

ILLUSTRATIVE RATES A SSUMING 2.1 \% GROW TH IN REVENUE REQUIREMENT AND 55 \% BASELINE QUANTITIE S

Appendix C-1: Illustrative Rates Assuming 2.1\% Growth in Revenue Requirement and 55\% Baseline Quantities

| E-1 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-1 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | \$0.147 | \$0.147 | \$0.147 | \$0.173 | \$0.177 | Tier 1 | \$0.092 | \$0.097 | \$0.103 | \$0.118 | \$0.121 |
| Tier 2 | \$0.170 | \$0.223 | \$0.223 | \$0.207 | \$0.212 | Tier 2 | \$0.106 | \$0.118 | \$0.124 | \$0.142 | \$0.146 |
| Tier 3 | \$0.249 | \$0.223 | \$0.223 | \$0.207 | \$0.212 | Tier 3 | \$0.151 | \$0.118 | \$0.124 | \$0.142 | \$0.146 |
| Tier 4 | \$0.309 | \$0.304 | \$0.265 | \$0.207 | \$0.212 | Tier 4 | \$0.151 | \$0.151 | \$0.148 | \$0.142 | \$0.146 |
| Customer Charge | \$0.00 | \$5.00 | \$10.00 | \$10.21 | \$10.42 | Customer Charge | \$0.00 | \$2.50 | \$5.00 | \$5.11 | \$5.21 |
| E-6 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | EL-6 Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| Summer Peak |  |  |  |  |  | Summer Peak |  |  |  |  |  |
| Tier 1 | \$0.307 | \$0.275 |  |  |  | Tier 1 | \$0.209 | \$0.225 |  |  |  |
| Tier 2 | \$0.330 | \$0.351 |  |  |  | Tier 2 | \$0.224 | \$0.246 |  |  |  |
| Tier 3 | \$0.407 | \$0.351 |  |  |  | Tier 3 | \$0.321 | \$0.246 |  |  |  |
| Tier 4 | \$0.467 | \$0.432 |  |  |  | Tier 4 | \$0.321 | \$0.278 |  |  |  |
| Summer Part-Peak |  |  |  |  |  | Summer Part-Peak |  |  |  |  |  |
| Tier 1 | \$0.191 | \$0.182 |  |  |  | Tier 1 | \$0.125 | \$0.132 |  |  |  |
| Tier 2 | \$0.215 | \$0.258 |  |  |  | Tier 2 | \$0.140 | \$0.153 |  |  |  |
| Tier 3 | \$0.292 | \$0.258 |  |  |  | Tier 3 | \$0.198 | \$0.153 |  |  |  |
| $\bigcirc$ Tier 4 | \$0.352 | \$0.339 |  |  |  | Tier 4 | \$0.198 | \$0.186 |  |  |  |
| $\rightarrow$ Summer Off-Peak |  |  |  |  |  | Summer Off-Peak |  |  |  |  |  |
| $\rightarrow \quad$ Tier 1 | \$0.115 | \$0.122 |  |  |  | Tier 1 | \$0.068 | \$0.072 |  |  |  |
| Tier 2 | \$0.138 | \$0.198 |  |  |  | Tier 2 | \$0.083 | \$0.093 |  |  |  |
| Tier 3 | \$0.215 | \$0.198 | PG\&E Proposes Closing Schedule in 2016 |  |  | Tier 3 | \$0.116 | \$0.093 | PG\&E Proposes Closing Schedule |  |  |
| Tier 4 | \$0.275 | \$0.279 |  |  |  | Tier 4 | \$0.116 | \$0.125 | in 2016 |  |  |
| Winter Part-Peak |  |  |  |  |  | Winter Part-Peak |  |  |  |  |  |
| Tier 1 | \$0.136 | \$0.139 |  |  |  | Tier 1 | \$0.084 | \$0.089 |  |  |  |
| Tier 2 | \$0.159 | \$0.215 |  |  |  | Tier 2 | \$0.099 | \$0.110 |  |  |  |
| Tier 3 | \$0.236 | \$0.215 |  |  |  | Tier 3 | \$0.138 | \$0.110 |  |  |  |
| Tier 4 | \$0.296 | \$0.296 |  |  |  | Tier 4 | \$0.138 | \$0.142 |  |  |  |
| Winter Off-Peak |  |  |  |  |  | Winter Off-Peak |  |  |  |  |  |
| Tier 1 | \$0.119 | \$0.125 |  |  |  | Tier 1 | \$0.072 | \$0.074 |  |  |  |
| Tier 2 | \$0.142 | \$0.201 |  |  |  | Tier 2 | \$0.087 | \$0.095 |  |  |  |
| Tier 3 | \$0.220 | \$0.201 |  |  |  | Tier 3 | \$0.121 | \$0.095 |  |  |  |
| Tier 4 | \$0.280 | \$0.282 |  |  |  | Tier 4 | \$0.121 | \$0.128 |  |  |  |
| Customer Charge | \$0.00 | \$5.00 |  |  |  | Customer Charge | \$0.00 | \$2.50 |  |  |  |



| E-TOU Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 | E-TOU CARE Rates | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Summer |  |  |  |  |  | Summer |  |  |  |  |  |
| On-Peak |  |  | 0.313 | 0.315 | 0.320 | On-Peak |  |  | 0.203 | 0.205 | 0.208 |
| Off-Peak |  |  | 0.176 | 0.178 | 0.183 | Off-Peak |  |  | 0.114 | 0.116 | 0.119 |
| Winter |  |  |  |  |  | Winter |  |  |  |  |  |
| On-Peak |  |  | 0.177 | 0.179 | 0.184 | On-Peak |  |  | 0.115 | 0.116 | 0.119 |
| Off-Peak |  |  | 0.163 | 0.165 | 0.170 | Off-Peak |  |  | 0.106 | 0.107 | 0.110 |
| Customer Charge |  |  | \$10.00 | \$10.21 | \$10.42 | Customer Charge |  |  | \$5.00 | \$5.11 | \$5.21 |

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX C -2 

## CARE EFFECTIVE DISCOUNT A SSUMING 2.1 \% GROW TH IN

 REVENUE REQUIREMENT AND 55 \% BASELINE QUANTITIE S| No of Customers | Non-CARE | Non-CARE Pct of Customers | CARE | CARE Pct of Customers | Total | Total Pct of Customers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | 1,213,962 | 36\% | 551,029 | 43\% | 1,764,992 | 38\% |
| Tier 2 | 530,917 | 16\% | 237,328 | 19\% | 768,244 | 17\% |
| Tier 3 | 1,000,480 | 30\% | 345,568 | 27\% | 1,346,047 | 29\% |
| Tier 4 | 608,190 | 18\% | 134,106 | 11\% | 742,297 | 16\% |
| Total | 3,353,549 | 100\% | 1,268,031 | 100\% | 4,621,580 | 100\% |
| Customer Months | 41,554,094 |  | 14,119,521 |  | 55,673,615 |  |


| Billing Determinants (kWh) with 55\% Baseline Quantity | Non-CARE | Non-CARE Pct of Sales | CARE | CARE <br> Pct of Sales | Total | Total Pct of Sales |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tier 1 | 13,500,258,922 | 57\% | 4,780,984,874 | 63\% | 18,281,243,796 | 59\% |
| Tier 2 | 2,558,794,319 | 11\% | 828,395,851 | 11\% | 3,387,190,170 | 11\% |
| Tier 3 | 3,761,441,885 | 16\% | 1,112,215,994 | 15\% | 4,873,657,879 | 16\% |
| Tier 4 | 3,740,558,650 | 16\% | 874,628,527 | 12\% | 4,615,187,178 | 15\% |
| Total | 23,561,053,776 | 100\% | 7,596,225,247 | 100\% | 31,157,279,023 | 100\% |


| Scenario 3.3 | Assumin $\mathrm{g} 21 \%$ Growh in Revenue Re qurement and $55 \%$ Baseline Quantie S |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Summer 2014 | Jan 2015 | Jan 2016 | Jan 2017 | Jan 2018 |  |
| Non-CARE |  |  |  |  |  |  |
| Minimum Bill Amount (\$/mo) | \$4.50 | \$0.00 | \$0.00 | \$0.00 |  | \$0.00 |
| Basic Service Fee (\$/mo) | \$0.00 | \$5.00 | \$10.00 | \$10.2 |  | \$10.4 |
| T-1 Rate (\$/kWh) | \$0.14707 | \$0.14707 | \$0.14707 | \$0.17262 |  | \$0.17704 |
| T-2 Rate (\$/kWh) | \$0.17028 | \$0.22303 | \$0.22303 | \$0.20718 |  | \$0.21245 |
| T-2' Rate (\$/kWh) | \$0.24862 | \$0.22303 | \$0.22303 | \$0.20718 |  | \$0.21245 |
| T-3 Rate (\$/kWh) | \$0.30862 | \$0.30417 | \$0.26548 | \$0.20718 |  | \$0.21245 |
| CARE |  |  |  |  |  |  |
| Minimum Bill Amount | \$3.60 | \$0.00 | \$0.00 | \$0.00 |  | \$0.00 |
| Basic Service Fee (\$/mo) | \$0.00 | \$2.50 | \$5.00 | \$5.11 |  | \$5.2 |
| T-1 Rate (\$/kWh) | \$0.09244 | \$0.09700 | \$0.10300 | \$0.11825 |  | \$0.12126 |
| T-2 Rate (\$/kWh) | \$0.10630 | \$0.11800 | \$0.12400 | \$0.14185 |  | \$0.14553 |
| T-2' Rate (\$/kWh) | \$0.1508 | \$0.11800 | \$0.12400 | \$0.14185 |  | \$0.14553 |
| T-3 Rate (\$/kWh) | \$0.15081 | \$0.15081 | \$0.14802 | \$0.14185 |  | \$0.14553 |
| CARE Discount Estimates |  |  |  |  |  |  |
| CARE Revenue Collection at Non-CARE Rates | 1,390,621,353 | 1,472,593,979 | 1,509,342,199 | 1,552,717,059 |  | 1,591,624,62 |
| Total CARE Revenue Collection | 829,631,666 | 859,949,2 | 62 933,137,43 | 33 1,036,761,4 | 63 | 1,062,992,93 |
| CARE Discount (\$) | 560,989,687 | 612,644, 7 | 16 576,204,67 | 6 515,955, 4 | 96 | 528,631,6 |
| Effective CARE Discoun t | 42\% | 44\% | 40\% | $35 \%$ |  | 35\% |

## PACIFIC GAS AND ELECTRIC COMPANY APPENDIX C-3

YEAR-TO-YEAR BILL COMPARISON USING PG\&E'S
STANDARD FORMAT: AT ILLUSTRATIVE RATES ASSUMING
2.1\% GROWTH IN REVENUE REQUIREMENT AND

55\% BASELINE QUANTITIES

# RATE DATA ANALYSIS :RATEF.DR5238.JCL(RPT33) 

Total Annual Bill Sumary by Rate Schedules
Comparison Between 2014 summer with of RRQ Current 2.5 Revised Rates
AND 2015 Surmer proposed 3.3 Rates using $50 \%$ BO
data From yearly file (JAN 2011 - Dec 2011)

| LAST |  |  |
| :--- | ---: | ---: |
| RATE |  |  |
| SCHEDULE | COUNT | ANNUAL TOTAL, KWH |
|  |  |  |
| E1 | $2,815,104$ | $18,278,276,127$ |
| E1L | $1,156,472$ | $7,576,011,970$ |
| E6 | 5,462 | $52,512,188$ |
| E6L | 379 | $6,078,576$ |
| E7 | 57,771 | $606,295,672$ |
| E7L | 7,757 | $84,873,446$ |
| E8 | 43,911 | $675,567,529$ |
| E8L | 8,692 | $136,763,391$ |
| TOTAL | $4,095,548$ | $27,416,378,899$ |

TOTAL ANNUAL
CURRENT BILLS

$\$ 3,629,397,068$
$\$ 853,156,348$
$\$ 10,864,155$
$\$ 726,656$
$\$ 112,018,910$
$\$ 9,874,596$
$\$ 140,358,165$
$\$ 15,234,233$
$\$ 4,771,630,131$

| CURRENT <br> AVG RATE | TOTAL ANNUAL <br> PROPOSED BILLS | PROPOSED <br> AVG RATE |
| ---: | ---: | ---: |
|  |  |  |
| 0.19856 | $\$ 3,801,271,245$ | 0.20797 |
| 0.11261 | $\$ 877,161,924$ | 0.11578 |
| 0.20689 | $\$ 11,283,974$ | 0.21488 |
| 0.11954 | $\$ 739,336$ | 0.12163 |
| 0.18476 | $\$ 129,824,278$ | 0.21413 |
| 0.11634 | $\$ 9,730,575$ | 0.11465 |
| 0.20776 | $\$ 159,200,725$ | 0.23565 |
| 0.11139 | $\$ 17,303,195$ | 0.12652 |
| 0.17404 | $\$ 5,006,515,252$ | 0.18261 |


| DIFFERENCE <br> (PROPOSED- <br> CURRENT) | (PROPOSED- <br> CURRENT)/ <br> CURRENT | MAX DIFFERENCE | MIN DIFFERENCE |
| ---: | :---: | ---: | ---: |
|  |  |  |  |
| $\$ 171,874,177$ | $4.74 \%$ | $\$ 619$ | $\$-9,484$ |
| $\$ 24,005,575$ | $2.81 \%$ | $\$ 232$ | $\$-396$ |
| $\$ 419,818$ | $3.86 \%$ | $\$ 273$ | $\$-427$ |
| $\$ 12,681$ | $1.75 \%$ | $\$ 558$ | $\$ 138$ |
| $\$ 17,805,368$ | $15.89 \%$ | $\$ 3,834$ | $\$-707$ |
| $\$-144,021$ | $(1.46 \%)$ | $\$ 1,157$ | $\$-1,343$ |
| $\$ 18,842,561$ | $13.42 \%$ | $\$ 16,531$ | $\$ 0$ |
| $\$ 2,068,962$ | $13.58 \%$ | $\$ 10,316$ | $\$ 0$ |
| $\$ 234,885,122$ | $4.92 \%$ | $\$ 3,520$ | $\$-12,496$ |

Correlation of average monthly dollar and percent differgnces
Comparison Between 2014 Sumer with of RRQ Current 2.5 Revised Rates
AND 2015 Summer proposed 3.3 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
Data from Yearly file (JAN 2011 - Dec 2011)
RES full service


CORrelation of average monthly dollar and percent differences
Comparison Between 2014 Sunner with 0 R RRQ Current 2.5 Revised Rates
AND 2015 Summer proposed 3.3 Rates using $50 \% \mathrm{BQ}$
FOR ANNTAL
Data From Yearly file (Jan 2011 - Dec 2011)
RES full service
LAST RATE SCHEDULE=EIL


CORRELATION OF AVERAGE MONTHLY DOLLAR AND PERCENT DIFFERENCES
Comparison Between 2014 Summer with of RRQ Current 2.5 Revised Rates
AND 2015 Summer proposed 3.3 Rates using 50t BQ
FOR ANNUAL
Data From yearly File (Jan 2011 - Dec 2011)
RES full service

|  | $\stackrel{\$}{\text { PCT }}$ | MONTHLY \$ <br> DIFFERENCE | BELON -20\% DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 \%$ <br> decrease | $-5--0.01 \%$ <br> DECRRASE | $-0.01-08$ DECREASE | $0-0.01 \%$ INCREASE | $0.01-58$ <br> increase | $5-10 \%$ INCREASE | $10-207$ <br> increase | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$0.36 | $6(0.18)$ | 13 (0.28) | $31(0.6 \%)$ | 145(2.78) | 1 (0.08) | 0 | $22(0.48)$ | 0 | 0 | 0 |
|  | $8 \%$ | \$2.23 | 0 | 0 | 0 | 0 | 0 | 0 | 173 (3.2\%) | 24 (0.48) | $22(0.48)$ | $\bigcirc$ |
|  | 12\% | \$3.34 | 0 | 0 | 0 | 0 | 0 | 0 | 149 (2.78) | 45(0.8\%) | $20(0.48)$ | 5 (0.18) |
|  | $16 \%$ | \$4.09 | 0 | 0 | 0 | 0 | 0 | 0 | 134 (2.5\%) | $37(0.78)$ | $37(0.78)$ | 14 (0.3\%) |
|  | 208 | \$4.60 | 0 | 0 | 0 | 0 | 0 | 0 | 144 (2.58) | $31(0.68)$ | $33(0.68)$ | 12 (0.2\%) |
|  | 24. | \$4.97 | 0 | 0 | 0 | 0 | 0 | 0 | 113 (2.18) | 41 (0.8\%) | $35(0.68)$ | 25 (0.5\%) |
|  | 28\% | \$5.28 | 0 | 0 | 0 | 0 | 0 | 0 | 116 (2.18) | $38(0.78)$ | 44 (0.88) | 28 (0.5\%) |
|  | 32\% | \$5.55 | 0 | 0 | 0 | 0 | 0 | 0 | 94 (1.78) | 40(0.78) | $39(0.78)$ | $38(0.78)$ |
|  | 36\% | \$5.85 | 0 | 0 | 0 | 0 | 0 | 0 | 106(1.9\%) | $49(0.98)$ | $40(0.78)$ | 26(0.5\%) |
|  | 408 | \$6.14 | 0 | 0 | 0 | 0 | 0 | 0 | 86 (1.68) | $61(1.18)$ | $41(0.88)$ | 30(0.5\%) |
|  | 44\% | \$6.42 | 0 | 0 | 0 | 0 | 0 | 0 | 90 (1.67) | 73 (1.38) | $45(0.84)$ | 16 (0.38) |
|  | 48\% | \$6.65 | 0 | 0 | 0 | 0 | 0 | 0 | 78 (1.48) | 55 (1.08) | $56(1.08)$ | 24 (0.4\%) |
|  | 52\% | \$6.94 | 0 | 0 | 0 | 0 | 0 | 0 | 62 (1.18) | 87(1.68) | 57(1.08) | $17(0.38)$ |
|  | $56 \%$ | \$7.19 | 0 | 0 | 0 | 0 | 0 | 0 | 53 (1.08) | 93(1.78) | $52(2.08)$ | 20(0.4\%) |
|  | $60 \%$ | \$7.39 | 0 | 0 | 0 | 0 | 0 | 0 | 54 (1.08) | 77(1.48) | 61 (1.18) | 28 (0.57) |
| $\bigcirc$ | 64\% | \$7.64 | 0 | 0 | 0 | 0 | 0 | 0 | $52(1.08)$ | $62(1.18)$ | $77(1.48)$ | 22 (0.4\%) |
| \% | 68\% | \$7.89 | 0 | 0 | 0 | 0 | 0 | 0 | 39 (0.78) | 87 (1.68) | 86 (1.68) | $9(0.26)$ |
| $\omega$ | 72\% | \$8.16 | 0 | 0 | 0 | 0 | 0 | 0 | 35 (0.68) | $80(1.58)$ | $90(1.68)$ | 14 (0.38) |
| + | 76\% | \$8.44 | 0 | 0 | 0 | 0 | 0 | 0 | 39 (0.7\%) | $77(1.48)$ | 94 (1.78) | 13 (0.28) |
|  | $80 \%$ | \$8.72 | 0 | 0 | 0 | 0 | 0 | 0 | 31 (0.6\%) | 71 (1.38) | $96(1.88)$ | $10(0.28)$ |
|  | 84\% | \$9.08 | 0 | 0 | 0 | 0 | 0 | 0 | 30(0.58) | $87(1.68)$ | $91(1.7 \%)$ | 13 (0.2\%) |
|  | 888 | \$9.56 | 0 | 0 | 0 | 0 | 0 | 0 | 47(0.98) | 68 (1.28) | 98(1.8\%) | $4(0.18)$ |
|  | 92\% | \$10.22 | 0 | 0 | 0 | 0 | 0 | 0 | 58 (1.18) | 71(1.38) | $82(1.5 \%)$ | 6 (0.18) |
|  | 96\% | \$11.55 | 0 | 0 | 0 | 0 | 0 | 0 | 43 (0.8\%) | 98 (1.8\%) | 74 (1.4\%) | 3(0.1\%) |
|  | 1008 | \$22.76 | 0 | 0 | 0 | 0 | 0 | 0 | 58 (1.18) | 94(1.78) | 56 (1.08) | 10(0.2\%) |
|  | total |  |  | 13 | 31 | 145 | 1 | 0 | 1,906 | 1,546 | 1,427 | 387 |
|  |  |  | 0.1\% | 0.2\% | $0.6 \%$ | 2.7\% | $0.0 \%$ | $0.0 \%$ | 34.98 | 28.3\% | 26.1\% | 7.18 |
|  | cumulative |  | 6 | 19 | 50 | 195 | 196 | 196 | 2,102 | 3,648 | 5,075 | 5,462 |
|  |  |  | 0.18 | 0.3\% | 0.97 | 3.6\% | 3.67 | 3.67 | 38.5\% | 66.8\% | 92.9\% | 100.08 |
|  | AVG. MO | DIFF. | \$-7.6 | \$-6.6 | \$-5.0 | \$-4.0 | \$-0.1 |  | \$5.8 | \$7.6 | \$7.7 | \$6.6 |

CORrELATION OF AVERAGE MONTHLY DOLLAR AND PERCENT DIFFERENCES
Comparison Between 2014 Sunmer with of RRQ Current 2.5 Revised Rates
AND 2015 Summer proposed 3.3 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 201i)
pes full service


AND 2015 Sumner proposed 3.3 Rates using $50 \% \mathrm{BQ}$
For annual
Data from yearly file(JAN 2011 - Dec 2011)
RES full service

|  | $\begin{array}{cc} \$ & M \\ \text { FCT } & \mathrm{D} \end{array}$ | MONTHLY \$ <br> difference | BELOW -20\% DECrease | $-20--10 \%$ <br> DECREASE | $\begin{aligned} & -10--5 \% \\ & \text { DECREASE } \end{aligned}$ | $\begin{gathered} -5--0.01 \% \\ \text { DECREASE } \end{gathered}$ | $\begin{gathered} \text {-0.01-0\% } \\ \text { DECREASE } \end{gathered}$ | $0-0.018$ <br> increase | $0.01-5 \%$ <br> INCREASE | $\begin{aligned} & 5-10 \% \\ & \text { INCREASE } \end{aligned}$ | $10-20 \%$ <br> increase | ABOVE $20 \frac{8}{8}$ <br> INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$11.01 | 5 (0.0\%) | 5 (0.08) | $4(0.08)$ | 5 (0.0\%) | 0 | 0 | $38(0.18)$ | 40(0.18) | $203(0.4 \%)$ | 2,016(3.58) |
|  | 8\% | \$14.06 | 0 | 0 | 0 | 0 | 0 | 0 | 6 (0.08) | 57(0.18) | 176(0.38) | 2,071(3.6\%) |
|  | 12\% | \$15.71 | 0 | 0 | 0 | 0 | 0 | 0 | $6(0.08)$ | $92(0.28)$ | 410(0.78) | 1,817(3.18) |
|  | 16\% | \$16.95 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 87(0.28) | 740(1.3\%) | 1,473(2.5\%) |
|  | $20 \%$ | \$17.93 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 87(0.28) | 861 (1.58) | 1,356(2.38) |
|  | 24\% | \$18.70 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 72(0.18) | 923 (1.6\%) | 1,330(2.38) |
|  | 28\% | \$19.37 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | $81(0.18)$ | 927(1.6\%) | 1,279(2.27) |
|  | 32\% | \$20.09 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.08)$ | $83(0.18)$ | 1,030(1.88) | 1,195(2.18) |
|  | 36\% | \$20.84 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.0\%) | $83(0.18)$ | 1,234(2.17) | 1,016(1.8\%) |
|  | 408 | \$21.60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 (0.2\%) | 1,300(2.38) | 905 (1.6\%) |
|  | 44* | \$22.40 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.08)$ | 118(0.2\%) | 1.343(2.3\%) | 834 (1.48) |
|  | 48\% | \$23.25 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.08) | $111(0.28)$ | 1,416(2.58) | 785 (1.4\%) |
|  | 52\% | \$24.15 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | 108(0.28) | 1,477(2.68) | 720 (1.28) |
|  | 56\% | \$25.08 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 144 (0.28) | 1,503(2.68) | 670(1.2\%) |
|  | $60 \%$ | \$26.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 148(0.38) | 1,537(2.76) | 616 (1.18) |
| $\bigcirc$ | 64\% | \$27.31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141(0.2\%) | 1,526(2.6\%) | 659 (1.18) |
| $\omega$ | 68\% | \$28.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 168 (0.38) | 1,514(2.6\%) | 617(1.18) |
| 1 | 72\% | \$30.04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176(0.38) | 1,478(2.68) | 654 (1.18) |
| $\bigcirc$ | 76\% | \$31.67 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.08) | 196(0.38) | 1,446(2.58) | 674 (1.28) |
|  | 80\% | \$33.52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 189 (0.38) | 1,403 (2.40) | $717(1.28)$ |
|  | $84 \%$ | \$35.54 | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | 192 (0.38) | 1,416(2.5\%) | $707(1.28)$ |
|  | $88 \%$ | \$37.96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 197(0.38) | 1,385(2.4\%) | 723 (1.34) |
|  | 92\% | \$41.29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 248 (0.48) | 1,465(2.58) | $597(1.08)$ |
|  | 96\% | \$46.88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 275 (0.5\%) | 1,485(2.68) | 548 (0.98) |
|  | 100\% | \$319.50 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.08) | 544 (0.9\%) | 1.374(2.48) | 390 (0.7\%) |
| TOTAL |  |  | 5 | 5 | 4 | 5 | 0 | 0 | 72 | 3,739 | 29,572 | 24,369 |
|  |  |  | 0.08 | 0.04 | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | 0.0 | $0.1 \%$ | 6.5\% | 51.2\% | 42.2\% |
| cumulative |  |  | 5 | 10 | 14 | 19 | 19 | 19 | 91 | 3,830 | 33,402 | 57.771 |
|  |  |  | $0.0 \%$ | 0.08 | 0.08 | 0.0\% | 0.0\% | 0.0\% | 0.2\% | $6.6 \%$ | 57.8* | 100.08 |

CORrELATION OF AVERAGE MONTHLY DOLLAR AND PERCENT DIFFERENCES
AND 2015 Summer proposed 3.3 Rates using 50: BQ
pOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
pRS full service

|  | $\underset{\mathrm{PCT}}{\$}$ | MONTHLY \$ <br> DIfference | BELOW -20\% DECREASE | $-20--10 z$ <br> DECREASE | $-10--5 \%$ <br> DECREASE | $\begin{gathered} -5--0.01 \\ \text { DECREASE } \end{gathered}$ | $-0.01-0 \%$ <br> DECREASE | $0-0.01$ <br> increase | $0.01-5 \%$ <br> increase | $5-10 \%$ <br> increase | $10-20 \frac{7}{3}$ <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$-12.65 | 0 | 21 (0.38) | 251(3.28) | $38(0.58)$ | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 8\% | \$-9.73 | 2 (0.08) | $6(0.18)$ | 244 (3.18) | $59(0.88)$ | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | \$-7.84 | 0 | 0 | 194 (2.58) | 117(1.58) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 16\% | \$-6.46 | 0 | 0 | 147(1.98) | 162 (2.18) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 208 | \$-5.46 | 0 | 0 | 100 (1.3\%) | 211 (2.78) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | \$-4.63 | 0 | 0 | 91 (1.2\%) | 224 (2.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | \$-3.95 | 0 | 0 | 42(0.5\%) | 263 (3.48) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | \$-3.38 | 0 | 1 (0.08) | $21(0.3 \%)$ | 292 (3.88) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 368 | \$-2.84 | 1 (0.08) | 0 | $7(0.13)$ | 306 (3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 408 | \$-2.31 | 0 | 0 | 0 | 306 (3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $44 \%$ | \$-1.80 | 1 (0.08) | $2(0.08)$ | $2(0.08)$ | 304 (3.98) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 48\% | \$-1.28 | 1 (0.0\%) | $2(0.08)$ | 0 | 309 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 52\% | \$-0.75 | 0 | 0 | 0 | 307(4.08) | 0 | 0 | 0 | $\bigcirc$ | 0 | 0 |
|  | 56\% | \$-0.16 | 0 | 0 | 4 (0.18) | 311 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 60\% | \$0.33 | 0 | 0 | 0 | 78 (1.08) | 3 (0.08) | 7 (0.18) | 220 (2.88) | 0 | 0 | 0 |
| $\bigcirc$ | 64\% | \$0.94 | 0 | 0 | 0 | 0 | 0 | 0 | 305 (3.98) | $2(0.08)$ | $2(0.08)$ | 0 |
| $\omega$ | 68\% | \$1.55 | 0 | 0 | 0 | 0 | 0 | 0 | 302 (3.9\%) | 3 (0.08) | 3 (0.08) | $2(0.08)$ |
| 1 | 72\% | \$2.11 | 0 | 0 | 0 | 0 | 0 | 0 | 266(3.4*) | $38(0.5 \%)$ | $5(0.18)$ | 1(0.08) |
|  | 76\% | \$2.53 | 0 | 0 | 0 | 0 | 0 | 0 | 153 (2.08) | 121 (1.6\%) | $33(0.4 \%)$ | $5(0.17)$ |
|  | $80 \%$ | \$2.84 | 0 | 0 | 0 | 0 | 0 | 0 | 84 (1.18) | 123(1.68) | 66(0.98) | 35 (0.5\%) |
|  | 84\% | \$3.12 | 0 | 0 | 0 | 0 | 0 | 0 | $58(0.7 \%)$ | 133(1.78) | 115(1.5\%) | 14 (0.2\%) |
|  | 88\% | \$3.44 | 0 | 0 | 0 | 0 | 0 | 0 | $52(0.78)$ | 131(1.76) | 121(1.4\%) | 10(0.18) |
|  | 92\% | \$3.90 | 0 | 0 | 0 | 0 | 0 | 0 | $61(0.8 \%)$ | 137(1.8\%) | 103 (1.38) | $8(0.18)$ |
|  | 96\% | \$4.88 | 0 | 0 | 0 | 0 | 0 | 0 | 57(0.78) | 160(2.17) | 72 (0.98) | 19(0.2\%) |
|  | 100\% | \$96.43 | 0 | 0 | 0 | - | 0 | 0 | 77(1.08) | 155(2.08) | 62 (0.88) | 16(0.28) |
|  | total |  | 5 | 32 | 1,103 | 3,287 | 3 | 7 | 1.635 | 1,003 | 572 | 110 |
|  |  |  | 0.17 | $0.4 \%$ | 14.2\% | 42.4\% | 0.0\% | 0.18 | 21.17 | 12.9\% | 7.4\% | 1.4* |
|  | cumulative |  | 5 | 37 | 1.140 | 4,427 | 4,430 | 4,437 | 6,072 | 7,075 | 7.647 | 7,757 |
|  |  |  | 0.27 | 0.5\% | 14.7\% | 57.1\% | 57.18 | 57.2\% | 78.3\% | 91.2\% | 98.6\% | 100.0\% |

Correlation of average monthly dollar and percent differbnces
Comparison Between 2014 Sumer with of RRQ Current 2.5 Revised Rates
AND 2015 Sumner proposed 3.3 Rates using 50\% BQ
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
fes full service

|  |  | MONTHLY \$ DIFFERENCE | BELOW - $20 \%$ DECREASE | $\begin{gathered} -20--108 \\ \text { DECREASE } \end{gathered}$ | $-10--5 z$ <br> decrease | $\begin{gathered} -5--0.018 \\ \text { DECREASE } \end{gathered}$ | $\begin{gathered} -0.01-0 \% \\ \text { DECREASE } \end{gathered}$ | $\begin{gathered} 0-0.01 \% \\ \text { INCREASE } \end{gathered}$ | $0.01-5 \%$ <br> increase | 5-10\% increase | $10-20 \%$ <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\% | \$10.93 | 0 | 0 | 0 | 0 | 0 | 33 (0.18) | $78(0.28)$ | 380(0.9\%) | 1,265(2.98) | $1(0.08)$ |
|  | $8 \%$ | \$14.53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.0\%) | 1,748(4.08) | $11(0.08)$ |
|  | 12\% | \$16.56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 1,747(4.08) | $9(0.08)$ |
|  | 16\% | \$18.32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.08)$ | 1,750(4.08) | $3(0.08)$ |
|  | 208 | \$19.93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (0.08) | 1.743(4.08) | $6(0.08)$ |
|  | 248 | \$21.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 1,748(4.08) | $12(0.0 \%)$ |
|  | 28\% | \$22.88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | 1,725(3.98) | 25 (0.18) |
|  | 324 | \$24.34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 1,715(3.98) | 36(0.1\%) |
|  | 368 | \$25.78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 1,729(3.98) | $32(0.18)$ |
|  | $40 \%$ | \$27.22 | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | $3(0.08)$ | 1,705(3.98) | 43 (0.18) |
|  | 448 | \$28.78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 1,698(3.9\%) | $58(0.18)$ |
|  | 48\% | \$30.22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (0.08) | 1,690(3.88) | $65(0.18)$ |
|  | 52\% | \$31.69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | 1,697(3.98) | $51(0.18)$ |
|  | 56\% | \$33.26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.0\%) | 1,704(3.98) | 48 (0.12) |
|  | $60 \%$ | \$34.84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $1(0.08)$ | 1,732(3.98) | $32(0.18)$ |
| $\bigcirc$ | 64\% | \$36.57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.08) | 1,730(3.98) | $23(0.18)$ |
| $\omega$ | 68\% | \$38.52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 1,737(4.08) | $18(0.08)$ |
| 1 | 723 | \$40.52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 (0.08) | 1.731(3.98) | 14(0.08) |
| $\infty$ | $76 \%$ | \$42.96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 1,751(4.08) | 10(0.08) |
|  | $80 \%$ | \$45.98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.08) | 1,740(4.08) | 10(0.0\%) |
|  | 848 | \$49.69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 (0.0\%) | 1.739(4.08) | 14 (0.08) |
|  | 88\% | \$54.68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $6(0.08)$ | 1,733(3.98) | $15(0.08)$ |
|  | $92 \%$ | \$62.80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 (0.08) | 1,735(4.08) | 14 (0.08) |
|  | $96 \%$ | \$80.07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $9(0.0 \%)$ | 1,739(4.08) | $7(0.08)$ |
|  | $100 \%$ | 1377.56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 (0.08) | 1,744(4.08) | 5 (0.08) |
|  | total |  | 0 | 0 | 0 | 0 | 0 | 33 | 78 | 463 | 42,775 | 562 |
|  |  |  | 0.08 | 0.0\% | 0.08 | $0.0 \%$ | 0.0\% | 0.1\% | $0.2 \%$ | 1.1\% | 97.4\% | 1.3\% |
|  | CUMULA | ative | 0 | 0 | 0 | 0 | 0 | 33 | 111 | 574 | 43,349 | 43,911 |
|  |  |  | $0.0 \%$ | 0.0\% | 0.07 | 0.0\% | 0.08 | 0.18 | 0.3\% | 1.3\% | 98.78 | 100.0\% |


|  | $\begin{array}{cc} \$ & \mathrm{MC} \\ \mathrm{PCT} & \mathrm{DI} \end{array}$ | NTHLY $\$$ fference | BELOW - $20 \%$ DECREASE | $\begin{gathered} -20--10 \% \\ \text { DECREASE } \end{gathered}$ | $-10--5 z$ <br> DECREASE | $-5--0.01 \%$ <br> DECREASE | $\begin{gathered} -0.01-0 \% \\ \text { DECREASE } \end{gathered}$ | $0-0.01 z$ INCREASE | $0.01-5 z$ <br> INCREASE | 5 - $10 \%$ INCREASE | $10-20 \%$ <br> INCREASE | ABOVE 20\% tNCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 48 | \$7.05 | 0 | 0 | 0 | 0 | 0 | 4 (0.08) | $2(0.08)$ | $41(0.58)$ | 302 (3.58) | 0 |
|  | $8 \%$ | \$8.08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 (0.38) | 320 (3.78) | $2(0.08)$ |
|  | 12\% | \$9.03 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 (0.18) | 336 (3.98) | 0 |
|  | $16 \%$ | \$9.96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 346(4.08) | $3(0.08)$ |
|  | 208 | \$10.93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $5(0.18)$ | 336 (3.98) | $6(0.18)$ |
|  | 24\% | \$11.78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 321 (3.78) | 22 (0.38) |
|  | 28\% | \$12.75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 (0.18) | 315 (3.68) | $28(0.38)$ |
|  | 32\% | \$13.54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 315(3.6\%) | 29 (0.3\%) |
|  | 36\% | \$14.34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $3(0.08)$ | 320(3.78) | $28(0.38)$ |
|  | 40\% | \$15.10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 (3.8\%) | 18 (0.28) |
|  | 44\% | \$15.73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 329 (3.8\%) | 20(0.2\%) |
|  | 48\% | \$16.38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.0\%) | 318 (3.7\%) | 34 (0.4\%) |
|  | 52\% | \$16.96 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31.7 (3.6\%) | 27(0.3\%) |
|  | 56\% | \$17.75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1(0.08) | 328(3.8\%) | $23(0.38)$ |
|  | $60 \%$ | \$18.56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 320(3.7\%) | 23 (0.38) |
| $\bigcirc$ | 54\% | \$19.58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 330(3.8\%) | $19(0.2 \%)$ |
| $\cdots$ | 68\% | \$20.54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 307(3.58) | $38(0.4 \%)$ |
| 1 | 72\% | \$21.65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | $2(0.08)$ | 314(3.68) | 31 (0.4\%) |
| 0 | 76\% | \$22.95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0.0\%) | 306(3.5\%) | 40(0.5\%) |
|  | $80 \%$ | \$24.80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 329 (3.88) | 19(0.2\%) |
|  | 84\% | \$27.06 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 325(3.78) | 23 (0.38) |
|  | 88\% | \$29.82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 (3.8\%) | 22 (0.3\%) |
|  | 92\% | \$34.23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 331(3.8\%) | 16 (0.28) |
|  | 96\% | \$43.40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 341(3.9\%) | $7(0.18)$ |
|  | 100\% | \$859.69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 344 (4.08) | 3 (0.08) |
|  | TOTAL |  | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 103 | 8,102 | 481 |
|  |  |  | $0.0 \%$ | $0.0 \%$ | 0.08 | 0.08 | 0.0\% | $0.0 \%$ | 0.0\% | 1.2\% | 93.28 | 5.5\% |
|  | clmula | rive | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 109 | 8,211 | 8,692 |
|  |  |  | 0.0\% | 0.08 | $0.0 \%$ | $0.0 \%$ | 0.08 | 0.0\% | 0.18 | 1.3\% | 94.5\% | 100.0\% |
|  | Avg.mo | DIPF. |  |  |  | . |  | \$0.0 | \$0.2 | \$8.0 | \$20.1 | \$19.0 |

# RATE DATA ANALYSIS : RATEP.DR5238.JCL(RPT33) PACIFIC GAS AND ELECTRIC COMPANY 

 Total Annual Bill Summary by Rate SchedulesComparison Between 2015 Summer proposed 3.3 Rates using 50\% BQ
AND 2016 Summer proposed 3.3 Rates using $50 \%$ BQ
Data From Yearly File (JAN 2011 - Dec 2011)

AND 2016 Summer proposed 3.3 Rates using 50\% BQ
FOR ANNUAL
Data From Yearly file (Jan 2011 - Dec 2011)
RES full service
LAST RATE SCHEDULE=E1

| $\underset{\mathrm{PCT}}{\$}$ | MONTHLY \$ <br> DIFPERENCE | BELOW -20\% DECREASE | $-20--10 \%$ <br> decrease | $-10--5 \%$ <br> DECREASE | $-5 \cdots-0.017$ <br> DECREASE | $-0.01-08$ <br> dBCrease | $0-0.01 \%$ <br> increase | $0.01-5 \%$ <br> INCREASE | $5-10 \%$increase | 10-20\% <br> INCREASE | ABOVE 20\% INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 48 | -16.83 | 0 | 7.951(0.38) | 102,932(3.78) | 1,741(0.18) | 0 | 0 | 0 | 0 | 0 | 0 |
| 8\% | \$-9.42 | 0 | 0 | 43,824(1.6\%) | 68,856(2.48) | 0 | 0 | 0 | 0 | 0 | 0 |
| 12\% | \$-5.44 | 0 | 0 | $89(0.08)$ | 112,694(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
| 26\% | \$-2.75 | 0 | 0 | 0 | 112,342(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
| $20 \%$ | \$-0.74 | 0 | 0 | 0 | 112,599(4.0\%) | 0 | 0 | 0 | 0 | 0 | 0 |
| 24\% | \$0.83 | 0 | 0 | 0 | 48,457(1.78) | 1,070(0.08) | 1,136(0.08) | 62,617(2.28) | 0 | 0 | 0 |
| $28 \%$ | \$2.04 | 0 | 0 | 0 | 0 | 0 | 0 | 112,743(4.0\%) | 2 (0.08) | 0 | 0 |
| 32\% | - \$2.98 | 0 | 0 | 0 | 0 | 0 | 0 | 112,116(4.08) | 178 (0.08) | 0 | 0 |
| 36\% | \$3.70 | 0 | 0 | 0 | 0 | 0 | 0 | 110,494(3.9\%) | 2,070(0.18) | 37(0.08) | 0 |
| $40 \%$ | \$4.23 | 0 | 0 | 0 | 0 | 0 | 0 | 101.858(3.6\%) | 11,298(0.4\%) | 324 (0.08) | 4 (0.08) |
| 44\% | \$4.60 | 0 | 0 | 0 | 0 | 0 | 0 | 74.998(2.78) | 38,597(1.4\%) | 1,093(0.08) | $40(0.08)$ |
| 48\% | \$4.83 | 0 | 0 | 0 | 0 | 0 | 0 | 47,161(1.78) | 60,877(2.28) | 2,457(0.1\%) | 127 (0.08) |
| 52\% | \$4.94 | 0 | 0 | 0 | 0 | 0 | 0 | 28,271(1.08) | 123,814(4.48) | 60,630(2.2\%) | 26,796(1.08) |
| 60\% | \$4.97 | 0 | 0 | 0 | 0 | 0 | 0 | 27,531(1.0\%) | 210, 120(7.5\%) | 155,909(5.5\%) | 73.856(2.6\%) |
| $76 \%$ | \$4.98 | 0 | 0 | 0 | 0 | 0 | 0 | 20,945(0.78) | 180,676 (6.48) | 145,862(5.2\%) | 71,093(2.58) |
| ( 92\% | \$5.00 | 0 | 0 | 0 | 0 | 0 | 0 | 16.322(0.6\%) | 135,899(4.8\%) | 111,050(3.9\%) | 49.396(1.88) |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Total |  | 0 | 7.951 | 146,845 | 456,689 | 1,070 | 1,136 | 715,822 | 771,705 | 486,874 | 227.012 |
|  |  | $0.0 \%$ | 0.38 | 5.2\% | 16.2\% | 0.0\% | 0.0\% | 25.48 | 27.4\% | 17.3\% | 8.1\% |
| cumulative |  | 0 | 7,951 | 154,796 | 611,485 | 612,555 | 613,691 | 1329513 | 2101218 | 2588092 | 2815104 |
|  |  | 0.08 | 0.37 | 5.5\% | 21.7\% | 21.8\% | 21.8\% | 47.2\% | 74.68 | 91.9\% | $100.0 \%$ |

AND 2016 Summer proposed 3.3 Rates using 50\% $B Q$

## FOR ANNUAL

Data From Yearly file (Jan 2011 - Dec 2011)
RES full service
LAST RATE SCHEDULE=E1L

TOTAL ANNUAL
CURRENT BILLS

$\$ 3,830,742,453$
$\$ 945,457,532$
$\$ 10,842,670$
$\$ 757,612$
$\$ 126,726,854$
$\$ 10,293,769$
$\$ 150,202,497$
$\$ 17,725,997$
$\$ 5,092,749,385$

| CURRENT <br> AVG RATE | TOTAL ANNUAL <br> PROPOSED BILLS | PROPOSED <br> AVG RATE |
| ---: | ---: | ---: |
|  |  |  |
| 0.20958 | $\$ 3,797,130,932$ | 0.20774 |
| 0.12480 | $\$ 1,041,756,712$ | 0.13751 |
| 0.20648 | $\$ 10,010,900$ | 0.19064 |
| 0.12464 | $\$ 782,394$ | 0.12872 |
| 0.20902 | $\$ 120,851,259$ | 0.19933 |
| 0.12128 | $\$ 11,236,147$ | 0.13239 |
| 0.22234 | $\$ 137,600,842$ | 0.20368 |
| 0.12961 | $\$ 18,938,588$ | 0.13848 |
| 0.18576 | $\$ 5,138,307,775$ | 0.18742 |


| DIffgrence (PROPOSEDCURRENT) | (PROPOSEDCURRENTI// CURRENT | MAX DIFFERENCE |
| :---: | :---: | :---: |
| \$-33.611.521 | ( 0.88\%) | \$1.215 |
| \$96.299,181 | 10.19\% | \$984 |
| \$-831,770 | ( 7.67\%) | \$279 |
| \$24,781 | $3.27 \%$ | \$679 |
| \$-5,875,595 | ( 4.64\%) | \$742 |
| \$942,378 | 9.15 \% | \$863 |
| \$-12,601,655 | ( 8.39\%) | \$886 |
| \$1,212,591 | $6.84 \%$ | \$912 |
| \$45,558,390 | 0.89\% | \$6,559 |

CORRBLATION OF AVERAGE MONTHLY DOLLAAR AND PERCENT DIFFERENCES
Comparison Between 2016 Sumner proposed 3.3 Rates using $50 \%$ BQ
AND 2017 Summer proposed 3.3 Rates using $50 \% \mathrm{BQ}$
FOR ANNUAL
Data From Yearly File (JAN 2011 - Dec 2011)
RES full service

- Last rate schedulenel

|  | \$ M | MONTHLY | BELOW -20\% | -20--10\% | -10--5\% | -5 - -0.01言 | -0.01-0\% | 0-0.01\% | 0.01-5\% | 5-10\% | 10-20\% | ABOVE 20\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PCT D | difference | decrease | decrrase | decrease | decrease | decrease | increase | increase | increase | increase | increase |
|  | $4 \%$ | -29.31 | 909 (0.0\%) | 106,812(3.88) | 4.845(0.28) | 41 (0.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 8 8 | -18.13 | 0 | 32,057(1.18) | 80,548(2.9\%) | 114 (0.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 12\% | -12.06 | 0 | 194 (0.08) | 109.569 (3.98) | 2,686(0.17) | 0 | 0 | 0 | 0 | $\bigcirc$ | 0 |
|  | 16\% | \$-7.88 | 0 | $51(0.08)$ | 73,783(2.6\%) | 38,887(1.48) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | $20 \%$ | \$-4.71 | 0 | $15(0.08)$ | 10,397(0.48) | 102,152 (3.68) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 24\% | \$-2.19 | 0 | 1 (0.08) | $186(0.08)$ | 112.476 (4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 28\% | \$-0.19 | 0 | 0 | $7(0.08)$ | 112,787(4.08) | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 32\% | \$0.89 | 0 | 0 | 0 | 11.195(0.48) | 782 (0.08) | $841(0.08)$ | 87.156(3.18) | 13,186(0.5\%) | 0 | 0 |
|  | 36\% | \$1.77 | 0 | 0 | 0 | 0 | 0 | 0 | 70,291(2.5\%) | 42,660(1.5\%) | 0 | 0 |
|  | 408 | \$2.49 | 0 | 0 | 0 | 0 | 0 | 0 | 66,954(2.48) | 11,554(0.48) | 33,948(1.28) | 0 |
|  | 448 | \$3.09 | 0 | 0 | 0 | 0 | 0 | 0 | 65,374(2.3\%) | 3,113(0.18) | 44,486(1.6\%) | 0 |
|  | 48\% | \$3.59 | 0 | 0 | 0 | 0 | 0 | 0 | 63,129(2.28) | 5,229(0.28) | 43,755(1.68) | 0 |
|  | 52\% | \$4.03 | 0 | 0 | 0 | 0 | 0 | 0 | 44.685 (1.6\%) | 24.427(0.98) | 43,085(1.5\%) | 0 |
|  | 56\% | \$4.43 | 0 | 0 | 0 | 0 | 0 | 0 | 40,073(3.48) | 30,808(1.18) | 43,672(1.6\%) | 0 |
|  | 60\% | \$4.78 | 0 | 0 | 0 | 0 | 0 | 0 | 35,736(1.38) | 31,989(1.28) | 42,556(1.5\%) | 0 |
| $\bigcirc$ | 64\% | \$5.12 | 0 | 0 | 0 | 0 | 0 | 0 | 18,411(0.78) | 50,181(1.8\%) | 46,989(1.78) | 0 |
| $\omega$ | 68\% | \$5.43 | 0 | 0 | 0 | 0 | 0 | 0 | 11,089 (0.4\%) | 40,282(1.48) | 61,326(2.28) | 0 |
| $\stackrel{1}{\sim}$ | 72\% | \$5.78 | 0 | 0 | 0 | 0 | 0 | 0 | 8,529(0.3\%) | 45,512(1.6\%) | 57,664 (2.08) | 0 |
| $\xrightarrow{\text { A }}$ | $76 \%$ | \$6.19 | 0 | 0 | 0 | 0 | 0 | 0 | 2,866(0.18) | 64,940(2.3\%) | 42,978(1.58) | 0 |
|  | 80\% | \$6.57 | 0 | 0 | 0 | 0 | 0 | 0 | 1,378(0.0\%) | 64,797(2.38) | 47,314(1.78) | 0 |
|  | B4\% | \$6.92 | 0 | 0 | 0 | 0 | 0 | 0 | 1.276(0.08) | 55,436(2.08) | 57,189(2.08) | 0 |
|  | 88\% | \$7.26 | 0 | 0 | 0 | 0 | 0 | 0 | 1.210 (0.08) | 27,622(1.08) | 84,180(3.08) | 0 |
|  | 92\% | \$7.69 | 0 | 0 | 0 | 0 | 0 | 0 | 1,485(0.18) | 31,353(1.18) | 78,137(2.88) | 0 |
|  | 96\% | \$8.83 | 0 | 0 | 0 | 0 | 0 | 0 | 3,588(0.18) | 26,300(0.98) | 81.232(2.9\%) | 0 |
|  | 100\% | 101.22 | 0 | 0 | 0 | 0 | 0 | 0 | 4.003(0.18) | 36,746(1.38) | 71,791(2.6\%) | 0 |
| total |  |  | 909 | 139,130 | 279.435 | 380,338 | 782 | 841 | 527,233 | 606,135 | 880,301 | 0 |
|  |  |  | $0.0 \%$ | 4.9\% | 9.9\% | 13.58 | $0.0 \%$ | 0.08 | 18.78 | 21.57 | $31.3 \%$ | $0.0 \%$ |
| cumulative |  |  | 909 | 140,039 | 419,474 | 799,812 | 800,594 | 801,435 | 1328668 | 1934803 | 2815104 | 2815104 |
|  |  |  | $0.0 \%$ | 5.0\% | 14.9\% | $28.4 \%$ | 28.48 | 28.5\% | 47.2\% | 68.7\% | 100.04 | 100.0\% |
|  |  |  | \$-453.0 | \$-49.7 | \$-15.8 | \$-4.0 | \$-0.0 | \$0.0 | \$2.8 | \$5.8 | \$6.3 |  |

AND 2017 Sumner proposed 3.3 Rates using $50 \%$ BQ
for annual
Data From Yearly File（Jan 2011 －Dec 2011）
RES full service
－Last rate schedule＝eil

|  | $\begin{array}{cc} \$ & M \\ \mathrm{PCT} & \mathrm{D} \end{array}$ | MONTHLY \＄ <br> DIFPERENCE | BELON－20\％ DECREASE | $-20--10 \%$ <br> DECREASE | $-10--5 \%$ <br> DECREASE | $-5--0.018$ <br> decrease | $-0.01-08$ <br> decrease | $0-0.01 \%$ <br> increase | $0.01-5 \%$ <br> increase | $5-10 z$ <br> increase | $10-20 \%$ <br> increass | ABOVE 20\％ INCREASE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4\％ | \＄2．05 | 0 | 0 | 0 | 5．370（0．5\％） | 21 （0．08） | 31 （0．08） | 3．326（0．3\％） | 7，869（0．78） | 29，716（2．68） | 0 |
|  | $8 \%$ | \＄2．72 | 0 | 0 | 0 | 0 | 0 | 0 | 1，133（0．18） | 108 （0．08） | 45，674（3．98） | 0 |
|  | 12 告 | \＄3．23 | 0 | 0 | 0 | 0 | 0 | 0 | 1.083 （0．1\％） | $93(0.08)$ | 44，635（3．98） | 0 |
|  | $16 \%$ | \＄3．69 | 0 | 0 | 0 | 0 | 0 | 0 | 1，388（0．1\％） | 143 （0．08） | 45，132（3．9\％） | 0 |
|  | 208 | \＄4．12 | 0 | 0 | 0 | 0 | 0 | 0 | 1，593（0．18） | 182 （0．08） | 44，526（3．98） | 0 |
|  | 24\％ | \＄4．53 | 0 | 0 | 0 | 0 | 0 | 0 | 2，944（0．2\％） | 282 （0．08） | 44，322（3．88） | 0 |
|  | 28\％ | \＄4．93 | 0 | 0 | 0 | 0 | 0 | 0 | 2，439（0．28） | 423 （0．08） | 43，349（3．78） | 0 |
|  | 32\％ | \＄5．32 | 0 | 0 | 0 | 0 | 0 | 0 | 3．126（0．3\％） | 738 （0．18） | 42，302（3．78） | 0 |
|  | 36\％ | \＄5．70 | 0 | 0 | 0 | 0 | 0 | 0 | 1．496（0．1\％） | 3，622（0．38） | 41，002（3．58） | 0 |
|  | $40 \%$ | \＄6．07 | 0 | 0 | 0 | 0 | 0 | 0 | 2．480（0．18） | 5，134（0．48） | 40，105（3．5娄） | 0 |
|  | $44 \%$ | \＄6．41 | 0 | 0 | 0 | 0 | 0 | 0 | 1，730（0．18） | 6，923（0．6\％） | 37，327（3．28） | 0 |
|  | 48\％ | \＄6．73 | 0 | 0 | 0 | 0 | 0 | 0 | 2，005（0．2\％） | 8，223（0．78） | 36，314（3．18） | 0 |
|  | 52\％ | \＄7．03 | 0 | $\bigcirc$ | 0 | 0 | 0 | 0 | $2.071(0.2 \%)$ | 5，007（0．48） | 39．282（3．48） | 0 |
|  | 56\％ | \＄7．40 | 0 | 0 | 0 | 0 | 0 | 0 | 2，235（0．2\％） | 2，469（0．2\％） | 40，636（3．58） | 0 |
|  | $60 \%$ | \＄7．85 | 0 | 0 | 0 | 0 | 0 | 0 | 2，295（0．2\％） | 5．112（0．48） | 39，002（3．4\％） | 0 |
| $\bigcirc$ | 64\％ | \＄8．27 | 0 | 0 | 0 | 0 | 0 | 0 | 2，411（0．2\％） | 7，048（0．6\％） | 37．190（3．28） | 0 |
| $\omega$ | 68\％ | \＄8．65 | 0 | 0 | 0 | 0 | 0 | 0 | 2，243（0．28） | 9，253（0．8\％） | 34，198（3．08） | 0 |
| $\xrightarrow{1}$ | 72\％ | \＄9．01 | 0 | 0 | 0 | 0 | 0 | 0 | 1，434（0．18） | 12，215（1．18） | 33，068（2．98） | 0 |
| $\square$ | 76\％ | \＄9．34 | 0 | 0 | 0 | 0 | 0 | 0 | 368 （0．0\％） | 12，063（1．0\％） | 33，187（2．98） | 0 |
|  | 808 | \＄9．69 | 0 | 0 | 0 | 0 | 0 | 0 | $60(0.08)$ | 9，949（0．98） | 36，966（3．2\％） | 0 |
|  | 84\％ | \＄10．12 | 0 | 0 | 0 | 0 | 0 | 0 | $64(0.08)$ | 15，165（1．38） | 30．507（2．6\％） | 0 |
|  | 88\％ | \＄10．57 | 0 | 0 | 0 | 0 | 0 | 0 | 75 （0．08） | 18，738（1．68） | 27，769（2．4\％） | 0 |
|  | 92\％ | \＄11．06 | 0 | 0 | 0 | 0 | 0 | 0 | $96(0.0 \%)$ | 16．432（1．4\％） | 29，284（2．58） | 0 |
|  | 96\％ | \＄13．63 | 0 | 0 | 0 | 0 | 0 | 0 | 521 （0．08） | 6，891（0．68） | 38，708（3．3\％） | 0 |
|  | 100\％ | \＄82．00 | 0 | 0 | 0 | 0 | 0 | － | $446(0.08)$ | 7，364（0．6妾） | 38，441（3．38） | 0 |
| total |  |  | 0 | 0 | 0 | 5，370 | 21 | 31 | 36，962 | 161，446 | 952，642 | 0 |
|  |  |  | 0.08 | 0．0\％ | $0.0 \%$ | 0．5\％ | 0.08 | $0.0 \%$ | 3．2\％ | $14.0 \%$ | 82．4\％ | 0.0 |
| cumulative |  |  | 0 | 0 | $\bigcirc$ | 5.370 | 5，391 | 5，422 | 42，384 | 203，830 | 1156472 | 1156472 |
|  |  |  | 0.08 | $0.0 \%$ | $0.0 \%$ | 0．5\％ | 0．5\％ | 0．5\％ | 3.78 | 17.68 | 100．0\％ | 100．04 |

CORRELATION of average monthly dollar and percent differences
Total Annual Bill Summary by Rate Schedules
Comparison Between 2017 Summer proposed 3.3 Rates using $50 \%$ BQ
AND 2018 Summer proposed 3.3 Rates using $50 \% \mathrm{BQ}$
Data From Yearly file (JAN 2011 - Dec 2011)

TOTAL ANNUAL
CURRENT BILLS
\$3,797,130,932
$\$ 1,041,756,712$ \$1,041,756,712 $10,010,900$
$\$ 782,394$ \$120,851,259 \$11,236,147 $\$ 137,600,842$ \$18,938,588 $\$ 5,138,307,775$

| Current <br> avg rate | TOTAL annual <br> proposed bills | Proposed <br> AVG RATE |
| ---: | ---: | ---: |
|  |  |  |
| 0.20774 | $\$ 3,895,271,776$ | 0.21311 |
| 0.13751 | $\$ 1,068,734,807$ | 0.14107 |
| 0.19064 | $\$ 10,289,118$ | 0.19594 |
| 0.12871 | $\$ 804,047$ | 0.13228 |
| 0.19933 | $\$ 124,029,877$ | 0.20457 |
| 0.13239 | $\$ 11,534,362$ | 0.13590 |
| 0.20368 | $\$ 141,023,219$ | 0.20875 |
| 0.13848 | $\$ 19,405,515$ | 0.14189 |
| 0.18742 | $\$ 5,271,092,721$ | 0.19226 |


| DIFPRRENCE <br> (PROPOSED- <br> CURRENT) | (PROPOSED- <br> CURRENT)/ <br> CURRENT |
| ---: | :---: |
|  |  |
| $\$ 98.140,843$ | $2.58 \%$ |
| $\$ 26,978,095$ | $2.59 \%$ |
| $\$ 278,219$ | $2.78 \%$ |
| $\$ 21,653$ | $2.77 \%$ |
| $\$ 3.178,619$ | $2.63 \%$ |
| $\$ 298,215$ | $2.65 \%$ |
| $\$ 3.422,376$ | $2.49 \%$ |
| $\$ 466,927$ | $2.47 \%$ |
| $\$ 132,784,947$ | $2.58 \%$ |


| E1 | $2,815,104$ | $18,278,276,127$ |
| :--- | ---: | ---: |
| E1L | $1,156,472$ | $7,576,011,970$ |
| E6 | 5,462 | $52,512,188$ |
| E6L | 379 | $6,078,576$ |
| E7 | 57,771 | $606,295,672$ |
| E7L | 7,757 | $84,873,446$ |
| EB | 43,911 | $675,567,529$ |
| E8L | 8,692 | $136,763,391$ |
| TOTAL | $4,095,548$ | $27,416,378,899$ |

COUNT

LAST
RATE
and 2018 Summer proposed 3.3 Rates using 50\% BQ
FOR ANNUAL
Data From yearly file (JAN 2011 - Dec 2011)
RES full service
Last rate schedule =e1

|  |  |  |  |  | -10- | -5 - |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ M | MONTHLY \$ | BELOW -20\% | -20--10\% | -5\% | -0.01\% | -0.01-0\% | 0-0.02\% | 0.01-5\% | 5-10\% | 10-20\% | AbOVE 20\% |
|  | PCT D | DIFFERENCE | decrease | decrease | decrease | decrease | decrease | Increase | tncrease | increase | increase | incrrase |
|  | 4\% | \$0.65 | 0 | 0 | 0 | 0 | 0 | 0 | 115,534(4.18) | 0 | 0 | 0 |
|  | $8 \%$ | \$0.89 | 0 | 0 | 0 | 0 | 0 | 0 | 111,112(3.98) | 0 | 0 | 0 |
|  | 12\% | \$1.08 | 0 | 0 | 0 | 0 | 0 | 0 | 113,882(4.08) | 0 | 0 | 0 |
|  | 15\% | \$1. 25 | 0 | 0 | 0 | 0 | 0 | 0 | 116.358(4.18) | 0 | 0 | 0 |
|  | $20 \%$ | \$1.40 | 0 | 0 | 0 | 0 | 0 | 0 | 110.165(3.98) | 0 | 0 | 0 |
|  | 248 | \$1.55 | 0 | 0 | 0 | 0 | 0 | 0 | 113,714(4.08) | 0 | 0 | 0 |
|  | 28\% | \$1.69 | 0 | 0 | 0 | 0 | 0 | 0 | 107,666(3.88) | 0 | 0 | 0 |
|  | 32\% | \$1.84 | 0 | 0 | 0 | 0 | 0 | 0 | 115,354(4.18) | 0 | 0 | 0 |
|  | 36\% | \$1.99 | 0 | 0 | 0 | 0 | 0 | 0 | 114,935(4.18) | 0 | 0 | 0 |
|  | $40 \%$ | \$2.14 | 0 | 0 | 0 | 0 | 0 | 0 | 114.113(4.18) | 0 | 0 | 0 |
|  | 44\% | \$2.29 | 0 | 0 | 0 | 0 | 0 | 0 | 111,446(4.08) | 0 | 0 | 0 |
|  | 48\% | \$2.44 | 0 | 0 | 0 | 0 | 0 | 0 | 108,724(3.98) | 0 | 0 | 0 |
|  | 52\% | \$2.60 | 0 | 0 | 0 | 0 | 0 | 0 | 111,694(4.08) | 0 | 0 | 0 |
|  | 56\% | \$2.77 | 0 | 0 | 0 | 0 | 0 | 0 | 113.119(4.08) | 0 | 0 | 0 |
| $\bigcirc$ | $60 \%$ | \$2.95 | 0 | 0 | 0 | 0 | 0 | 0 | 112,951(4.08) | 0 | 0 | 0 |
| $\omega$ | $64 \%$ | \$3.14 | 0 | 0 | 0 | 0 | 0 | 0 | 111,268(4.08) | 0 | 0 | 0 |
| $\stackrel{1}{\sim}$ | 68\% | \$3.35 | 0 | 0 | 0 | 0 | 0 | 0 | 113,173(4.08) | 0 | 0 | 0 |
| $\checkmark$ | 72\% | \$3.58 | 0 | 0 | 0 | 0 | 0 | 0 | 112,037(4.08) | 0 | 0 | 0 |
|  | 76\% | \$3.84 | 0 | 0 | 0 | 0 | 0 | 0 | 112,347(4.08) | 0 | 0 | 0 |
|  | $80 \%$ | \$4.15 | 0 | 0 | 0 | 0 | 0 | 0 | 114,712(4.15) | 0 | 0 | 0 |
|  | 84\% | \$4.51 | 0 | 0 | 0 | 0 | 0 | 0 | 110,973(3.98) | 0 | 0 | 0 |
|  | 88\% | \$4.98 | 0 | 0 | 0 | 0 | 0 | 0 | 113,568(4.08) | 0 | 0 | 0 |
|  | 92\% | \$5.62 | 0 | 0 | 0 | 0 | 0 | 0 | 131,366(4.08) | 0 | 0 | 0 |
|  | 96\% | \$6.78 | 0 | 0 | - | $\bigcirc$ | 0 | 0 | 112,674(4.08) | 0 | 0 | 0 |
|  | 100\% | \$944.36 | 0 | 0 | 0 | 0 | 0 | 0 | 112,209 (4.08) | 0 | 0 | 0 |
|  | total |  | 0 | 0 | 0 | 0 | 0 | 0 | 2815104 | 0 | 0 | 0 |
|  |  |  | 0.08 | 0.08 | 0.08 | 0.0\% | 0.08 | 0.08 | 100.0\% | $0.0 \%$ | $0.0 \%$ | 0.08 |
|  | cumula | ative | 0 | 0 | $\bigcirc$ | 0 | 0 | 0 | 2815104 | 2815104 | 2815104 | 2815104 |
|  |  |  | 0.0\% | 0.0\% | 0.08 | 0.08 | 0.08 | 0.08 | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | Avg.mo | DIFF. | - | - | . | . | . | . | \$2.9 |  |  |  |

AND 2018 Sumner proposed 3.3 Rates using 508 BQ

## FOR ANNUAL

Data From Yearly file (JAN 2011 - Dec 2011)
RES full service
LAST RATE SCHEDULE=E1L

|  | -10-5 - |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ MO | NThly \$ | BELOW -20\% | -20--10\% | -5\% | -0.01\% | -0.01-0\% | 0-0.01\% | 0.01-5\% | 5-10\% | 10-20\% | ABOVE 20\% |
|  | PCT D | FFERESCE | decrease | DECREASE | decrease | decrease | decrease | increase | increase | increask | increase | increase |
|  | 4\% | \$0.55 | 0 | 0 | 0 | 0 | 0 | 0 | 48,135(4.28) | 0 | 0 | 0 |
|  | 8\% | \$0.68 | 0 | 0 | 0 | 0 | 0 | 0 | 48,234(4.28) | 0 | 0 | 0 |
|  | 12\% | \$0.78 | 0 | 0 | 0 | 0 | 0 | 0 | 45,964(4.08) | 0 | 0 | 0 |
|  | 16\% | \$0.87 | 0 | 0 | 0 | 0 | 0 | 0 | 45,029(3.98) | 0 | 0 | 0 |
|  | 207 | \$0.96 | 0 | 0 | 0 | 0 | 0 | 0 | 46,815(4.0\%) | 0 | 0 | 0 |
|  | 248 | \$1.05 | 0 | 0 | 0 | 0 | 0 | 0 | 47,986(4.18) | 0 | 0 | 0 |
|  | 28\% | \$1.13 | 0 | 0 | 0 | 0 | 0 | 0 | 42,038(3.68) | 0 | 0 | $\bigcirc$ |
|  | 32\% | \$1.22 | 0 | 0 | 0 | 0 | 0 | 0 | 46,378(4.08) | 0 | 0 | 0 |
|  | 36\% | \$1.32 | 0 | 0 | 0 | 0 | 0 | 0 | 50,544(4.4\%) | 0 | 0 | 0 |
|  | 40\% | \$1.41 | 0 | 0 | 0 | 0 | 0 | 0 | 44,282(3.88) | 0 | 0 | 0 |
|  | 44\% | \$1.51 | 0 | 0 | 0 | 0 | 0 | 0 | 47,555(4.18) | 0 | 0 | 0 |
|  | 48\% | \$1.61 | 0 | 0 | 0 | 0 | 0 | 0 | 45,739(4.08) | 0 | 0 | 0 |
|  | 52\% | \$1.71 | 0 | 0 | 0 | 0 | 0 | 0 | 44,256(3.88) | 0 | 0 | 0 |
|  | 56\% | \$1.82 | 0 | 0 | 0 | 0 | 0 | 0 | 45,927(4.08) | 0 | 0 | 0 |
| $\bigcirc$ | $60 \%$ | \$1.94 | 0 | 0 | 0 | 0 | 0 | 0 | 47,324(4.18) | 0 | $\bigcirc$ | 0 |
| $\omega$ | 64\% | \$2.06 | 0 | 0 | 0 | 0 | 0 | 0 | 43,990(3.8\%) | 0 | 0 | 0 |
| $\xrightarrow{1}$ | 688 | \$2.20 | 0 | 0 | 0 | 0 | 0 | 0 | 47,157(4.18) | 0 | 0 | 0 |
| $\infty$ | 72\% | \$2.35 | 0 | 0 | 0 | 0 | 0 | 0 | 45,681(4.08) | 0 | 0 | 0 |
|  | 76\% | \$2.52 | 0 | 0 | 0 | 0 | 0 | 0 | 45,991(4.08) | 0 | 0 | 0 |
|  | 80\% | \$2.73 | 0 | 0 | 0 | 0 | 0 | 0 | 48,156(4.2\%) | 0 | 0 | 0 |
|  | 84\% | \$2.96 | 0 | 0 | 0 | 0 | 0 | 0 | 44,536(3.9\%) | 0 | 0 | 0 |
|  | 88\% | \$3.28 | 0 | 0 | 0 | 0 | 0 | 0 | 46,906(4.18) | 0 | 0 | - |
|  | 92\% | \$3.75 | 0 | 0 | 0 | 0 | 0 | 0 | 45,991(4.08) | 0 | 0 | 0 |
|  | 96\% | \$4.63 | 0 | 0 | 0 | 0 | 0 | 0 | 45,647(3.98) | 0 | 0 | 0 |
|  | 100\% | \$67.63 | 0 | 0 | 0 | 0 | 0 | 0 | 46,211(4.08) | 0 | 0 | 0 |
|  | TOTAL |  | 0 | 0 | 0 | 0 | 0 | 0 | 1156472 | 0 | 0 | 0 |
|  |  |  | 0.0\% | 0.0\% | $0.0 \%$ | 0.08 | 0.08 | 0.08 | 100.0\% | 0.0\% | 0.0\% | 0.08 |
|  | cumulative |  | 0 | 0 | 0 | 0 | 0 | 0 | 1156472 | 1156472 | 1156472 | 1156472 |
|  |  |  | 0.08 | 0.08 | $0.0 \%$ | 0.08 | $0.0 \%$ | $0.0 \%$ | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
|  | AVG.mo diff. |  | - | - | . | - | - | - | \$2.0 |  |  |  |

# PACIFIC GAS AND ELEC TRIC COMPANY APPENDIX C -4 

BILL COMPARISON US ING ENERGY DIVISION FORMAT: AT ILLUSTRATIVE RATES A SSUMING 2.1 \% GROW TH IN REVENUE REQUIREMENT AND 55 \% BASELINE QUANTITIE S

PG\&E is in the process of completing the bill comparison using the Energy Division approved format for Appendices A-4, B-4, and C-4 and will provide these appendices by March 7, 2014, as a separate exhibit to the Supplemental Filing.

# PACIFIC GAS AND ELECTRIC COMPANY 

 APPENDIX D
## ASSIGNED COMMISSIONER RULING RATE DESIGN

 QUESTIONS 1-25
# PACIFIC GAS AND ELECTRIC COMPANY APPENDIX D ASSIGNED COMMISSIONER RULING RATE DESIGN QUESTIONS 1-25 

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# PACIFIC GAS AND ELECTRIC COMPANY APPENDIX D ASSIGNED COMMISSIONER RULING RATE DESIGN QUESTIONS 1-25 

## A. Overall Rate Design Structure

## Question 1

Please describe, in summary form, the proposed default residential rate structure for each year 2015-2018, including your proposed rates under two scenarios: (a) no additional revenue requirement change; and (b) a Consumer Price Index (CPI)-adjusted escalation of revenue requirements.

Include a Rate Design Roadmap that provides a detailed year-by-year narrative, and a summary table that shows the major rate design structure, policy, and elements year-by-year including the proposed rates. Include any optional rates that you are proposing in this proceeding as well as other optional rates in effect or being determined in other proceedings.

## Response to Question 1

As shown in the Rate Design Roadmap below, Pacific Gas and Electric Company's (PG\&E) proposed standard residential rate structure is for a gradual reduction in the number of tiers over the 2015-2018 transition period, and a gradual reduction in the rate differential between the top and bottom tier rates (until it reaches a 1.2:1 tier ratio by 2018). PG\&E also proposes to introduce a monthly service fee for both non-California Alternate Rates for Energy (CARE) and CARE customers that increases over the transition period, along with a gradual but steady reduction in the CARE discount which reaches Assembly Bill (AB) 327's mandated 30 to 35 percent range in 2018.

## PG\&E'S PROPOSED RESIDENTIAL RATE DESIGN ROADMAP PACIFIC GAS AND ELECTRIC COMPANY

| Line <br> No. | Objectives | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Tiered Rate Option |  |  |  |  |
| 2 | Monthly Service Fee (Replaces Minimum Bill) |  |  |  |  |
| 3 | Non-CARE | - \$5 | - Increase to \$10 | - Increase to \$10.21 | - Increase to \$10.42 |
| 4 | CARE | - \$2.50 | - Increase to \$5 | - Increase to \$5.11 | - Increase to \$5.21 |
| 3 | Fewer and Narrower Tiers | - Collapse tiers 2 and 3 | - Retain 3 tiers |  | - Reduce to 2 tiers with 1.2 price ratio |
| 4 | Reduced CARE Discount | - $43 \%$ | - $39 \%$ | - $36 \%$ | - $35 \%$ |
| 5 | Time-of-Use (TOU) Option |  |  |  |  |
| 6 | Monthly Service Fee | - Same path as tiered rates |  |  |  |
| 7 | CARE | - Same path as tiered rates |  |  |  |
| 8 | Non-Tiered TOU | - Start optional non-tiered <br> - TOU periods revised option |  |  |  |
| 9 | Existing TOU (E6,7) | - Follows same tier collapse path, monthly service fee, and CARE discount as tiered standard rates <br> - Close to new customers on $1 / 1 / 15$ <br> - Eliminate E-6, EL-6, E-7, EL-7, E-8, EL-8 on 1/1/16 - Retain Schedule EV plus monthly service fee |  |  |  |
| 10 | Critical Peak Pricing (SmartRate ${ }^{\text {TM }}$ ) | - Continue to offer to all customers as optional overlay <br> - Revise as tier collapse occurs |  |  |  |
| 11 | FERA and Medical Allowance | - Restructure to follow tier restructuring |  |  |  |
| 12 | Outreach | - General awareness to all residential customers <br> - Additional outreach efforts to the most impacted CARE and Non-CARE customers |  |  |  |
| 1 | Tables D-1 and D-2 below show illustrative rates, given PG\&E's proposal, |  |  |  |  |
| 2 | for two scenarios: (a) no additional revenue requirement change; and |  |  |  |  |
| 3 | (b) revenue requirement increased by 2.1 percent per year: |  |  |  |  |

TABLE D-1
PACIFIC GAS AND ELECTRIC COMPANY ILLUSTRATIVE RATES ASSUMING NO CHANGE IN CURRENT REVENUE REQUIREMENT

| Non-CARE Rates | $\begin{aligned} & \text { Current } \\ & \text { (Jan 2014) } \end{aligned}$ | Current <br> (SB 695- <br> Adjusted) | Proposed (Assuming No Change in Current Revenue Requirement) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| Monthly Service Fee | NA | NA | NA | \$5.00 | \$10.00 | \$10.21 | \$10.42 |
| Energy Charges |  |  |  |  |  |  |  |
| 0 to 100\% of BQ | \$0.132 | \$0.136 | \$0.147 | \$0.147 | \$0.147 | \$0.158 | \$0.156 |
| $100 \%$ to $130 \%$ of BQ | \$0.150 | \$0.155 | \$0.170 | \$0.184 | \$0.184 | \$0.190 | \$0.187 |
| $130 \%$ to $200 \%$ of BQ | \$0.324 | \$0.314 | \$0.249 | \$0.184 | \$0.184 | \$0.190 | \$0.187 |
| Over $200 \%$ of BQ | \$0.364 | \$0.354 | \$0.309 | \$0.304 | \$0.246 | \$0.190 | \$0.187 |
| CARE Rates | Current <br> (Jan 2014) | Current <br> (SB 695- <br> Adjusted) | Proposed (Assuming No Change in Current Revenue Requirement) |  |  |  |  |
|  |  |  | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| Monthly Service Fee | NA | NA | NA | \$2.50 | \$5.00 | \$5.11 | \$5.21 |
| Energy Charges |  |  |  |  |  |  |  |
| 0 to 100\% of BQ | \$0.083 | \$0.086 | \$0.091 | \$0.097 | \$0.103 | \$0.108 | \$0.107 |
| 100\% to $130 \%$ of BQ | \$0.096 | \$0.099 | \$0.104 | \$0.118 | \$0.124 | \$0.130 | \$0.128 |
| $130 \%$ to $200 \%$ of BQ | \$0.140 | \$0.140 | \$0.148 | \$0.118 | \$0.124 | \$0.130 | \$0.128 |
| Over 200\% of BQ | \$0.140 | \$0.140 | \$0.148 | \$0.148 | \$0.148 | \$0.130 | \$0.128 |

TABLE D-2
PACIFIC GAS AND ELECTRIC COMPANY
ILLUSTRATIVE RATES ASSUMING 2.1\% ANNUAL CHANGE IN REVENUE REQUIREMENT

| Non-CARE Rates | $\begin{aligned} & \text { Current } \\ & \text { (Jan 2014) } \end{aligned}$ | Current (SB 695Adjusted) | Proposed (Assuming 2.1 Percent Growth in Revenue Requirement) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| Monthly Service Fee Energy Charges | NA | NA | NA $\quad \$ 5.00$ |  | \$10.00 | \$10.21 | \$10.42 |
|  |  |  |  |  |  |  |  |
| 0 to $100 \%$ of $B Q$ | \$0.132 | \$0.136 | \$0.147 | \$0.147 | \$0.147 | \$0.162 | \$0.177 |
| $100 \%$ to $130 \%$ of BQ | \$0.150 | \$0.155 | \$0.170 | \$0.202 | \$0.202 | \$0.202 | \$0.212 |
| 130\% to 200\% of BQ | \$0.324 | \$0.314 | \$0.249 | \$0.202 | \$0.202 | \$0.202 | \$0.212 |
| Over 200\% of BQ | \$0.364 | \$0.354 | \$0.309 | \$0.304 | \$0.274 | \$0.245 | \$0.212 |
| CARE Rates | $\begin{aligned} & \text { Current } \\ & (\operatorname{Jan} 2014) \end{aligned}$ | Current (SB 695Adjusted) | Proposed (Assuming 2.1 Percent Growth in Revenue Requirement) |  |  |  |  |
|  |  |  | Summer 2014 | 2015 | 2016 | 2017 | 2018 |
| Monthly Service Fee | NA | NA | NA | \$2.50 | \$5.00 | \$5.11 | \$5.21 |
| Energy Charges |  |  |  |  |  |  |  |
| 0 to 100\% of BQ | \$0.083 | \$0.086 | \$0.091 | \$0.097 | \$0.103 | \$0.112 | \$0.121 |
| $100 \%$ to $130 \%$ of BQ | \$0.096 | \$0.099 | \$0.104 | \$0.118 | \$0.124 | \$0.136 | \$0.145 |
| $130 \%$ to $200 \%$ of BQ | \$0.140 | \$0.140 | \$0.148 | \$0.118 | \$0.124 | \$0.136 | \$0.145 |
| Over $200 \%$ of BQ | \$0.140 | \$0.140 | \$0.148 | \$0.148 | \$0.148 | \$0.148 | \$0.145 |

## Question 2

Briefly describe how your rate design proposal conforms to each of the 10 rate design principles in R.12-06-013.

## Response to Question 2

Rate design must balance a number of different objectives that can sometimes come into conflict with one another. In this proceeding, to guide the development of an optimal residential rate design structure, the Administrative Law Judge (ALJ) set forth 10 guiding principles, after extensive comments were solicited. ${ }^{1}$ PG\&E presents below a brief summary of how its Phase 1 rate reform proposals for the transition period meet these rate design objectives, grouped by like topics for convenience of the reader:

## Principles 2, 3, 8, 9 and 10

Rates should be based on marginal costs and cost-causation principles, should encourage economically efficient decision-making, should include incentives that are explicit and transparent, and should generally avoid cross-subsidies unless such cross-subsidies appropriately support explicit state policy goals.

A primary driver of PG\&E's Phase 1 proposals is to transition residential rates to be more "just and reasonable" (per Public Utilities Code Section 451), which has traditionally meant ensuring rates are based on the cost of service. ${ }^{2}$ Keeping rates as close as possible to cost of service is equitable, in contrast to the current state of residential rates in which post-energy crisis restrictions on changes to rates for Tiers 1 and 2 have caused upper-tier non-CARE rates to bear a disproportionate and highly inequitable share of residential cost of service.

PG\&E's Phase 1 rate reform proposal will, by 2018, transition PG\&E's current Tier 1 and 2 rates-which are significantly below cost-and its current Tier 3 and 4 rates-which are far above cost-to rates that are much closer to cost of service. By 2018, Schedules E-1 and EL-1 will be returned to a more

[^0]cost-based two-tier structure, as was in place before the energy crisis, with a gradually differentiated tier ratio (of 1.2:1) that removes most of the current cross-subsidy. Likewise, PG\&E proposes the phase-in of a monthly service fee based on the fixed costs all customers impose on the system. Adding a monthly service fee, as is used for all other customer classes to cover a portion of fixed costs, creates clearer, more cost-based and equitable rates. Currently, upper-tier users pay more than their fair share of these fixed costs, while lower-tier customers pay less than their fair share. PG\&E's proposed monthly service fee will further reduce the current, unfair, cross-subsidy. Similarly, PG\&E's Phase 1 proposal will gradually reduce the CARE discount, between now and 2018, to a level within AB 327's prescribed 30 to 35 percent range, thus moving these rates somewhat closer to cost of service, while still maintaining a substantial and explicit discount for these lower income customers.

## Principle 1

Low-income and medical baseline customers should have access to enough electricity to ensure basic needs (such as health and comfort) are met at an affordable cost.

Under PG\&E's Phase 1 proposals, medical baseline customers will continue to receive additional baseline allowances, and low income customers who qualify for CARE will receive CARE discounts of between 30 and 35 percent, which is far greater than the 15 percent CARE discount that was in place prior to the energy crisis. This discount range of 30 to 35 percent is now required by the statutory language in AB 327 (2013).

## Principle 4

Rates should encourage conservation and energy efficiency.

PG\&E's Phase 1 rate proposal will, by 2018, restore the standard residential rate schedules ( $\mathrm{E}-1$ and $\mathrm{EL}-1$ ) to a two-tiered rate with a higher ratio (1.2:1) than the $1.15: 1$ ratio that, prior to the energy crisis, the CPUC consistently found was adequate to incent conservation. In addition, fixing the problem that usage in Tiers 1 and 2 for many years now has been significantly below cost of service will send a more appropriate price signal to encourage large numbers of customers to conserve. PG\&E's proposal also includes expanded participation
in a simplified optional TOU rate and further growth in enrollment for its opt-in critical peak pricing rate-SmartRate-which is already the largest residential CPP program in the country with successful load reduction.

## Principle 5 <br> Rates should encourage reduction of both coincident and non-coincident peak demand.

For non-residential customer classes, dollar per kilowatt demand charges are generally used to send price signals to incent customers to reduce their coincident and non-coincident demands. While PG\&E's Phase 1 residential rate reform proposal does not include demand charges, PG\&E's non-tiered TOU rate will provide a rough price signal to incent customers to shift loads out of the on-peak period that would be expected to reduce coincident demand on the PG\&E system (which occurs during the summer on-peak period).


#### Abstract

Principles 6 and 10 Rates should be stable and understandable and provide customer choice, and transitions to new rate structures should emphasize customer education and outreach to enhance customer understanding and acceptance of new rates, and minimize and appropriately consider the bill impacts associated with such transitions.


While a primary driver of rate design should be to move toward more appropriate, economically efficient and cost-based price signals, rates should be as simple and understandable as possible, to better empower customers to take actions to control their energy expenses and usage, while retaining appropriate price signals and offering meaningful choices to customers. Cost-based rate changes should be tempered with a concern for mitigating sudden and unduly large bill increases. This means that the full extent of "cost-based rates" cannot be implemented in one step. PG\&E's Phase 1 rate reform proposal encompasses a multi-year transition, under which reforms to the residential rate structure are gradually implemented over a reasonable period. PG\&E's proposal balances the need to move as quickly as possible to fix the current inequitable rate imbalances with a desire to mitigate the bill impacts that would occur if all the necessary reforms were implemented all at once. PG\&E's gradual proposal results in bill impacts that are modest for the vast majority of customers.

PG\&E's Phase 1 proposal simplifies rates and makes them more understandable by gradually reducing the number of tiers to two by 2018 for the default E-1 and EL-1 rates, while introducing a new non-tiered opt-in TOU rate to be non-tiered starting in 2015—removing a major barrier to the current lack of broad based understanding of TOU pricing. These less complicated designs will be easier for customers to understand and manage their energy usage and bills.

PG\&E's proposed approach offers meaningful customer choice, and seeks to ramp up adoption by customers who affirmatively seek engagement, thus avoiding the potential for customer dissatisfaction where rate options are not subject to affirmative choice. PG\&E's proposal is designed to be practical to implement, and contemplates robust customer education and outreach to enhance customer understanding and acceptance of PG\&E's proposed new rate structure.

## Question 3

Describe how your rate design proposal complies legally and substantively with the relevant provisions of D.08-07-045, particularly Ordering Paragraph (OP) $8 .{ }^{3}$

## Response to Question 3

PG\&E fully complied with D.08-07-045, OP 8, when it filed its application for a default residential critical peak pricing rate in A.10-08-005. Since A.10-08-005 was filed, the Commission has initiated this rate reform rulemaking proceeding (R.12-06-013), and has recently revised the scope of the proceeding to include whether to require the utilities to provide default or voluntary TOU rate designs for residential customers. Furthermore, since D.08-07-045 was issued and A. 10-08-005 was filed, AB 327 repealed the then-existing Public Utilities Code Section 745 governing default and mandatory time-variant rates, and replaced it with a new Public Utilities Code Section 745 governing the timing and statutory criteria applicable to the requirement or authorization of default TOU pricing for

[^1]residential customers. Accordingly, the Assigned Commissioner has ordered the utilities to submit their proposed rate designs for default or voluntary TOU pricing in Phase 1 of the rate-setting phase of this rulemaking proceeding. PG\&E's rate design proposal is in compliance with the Assigned Commissioner's direction.

## Question 4

Does your default rate design request for 2018 and beyond include two-, three-, or four-tiered rates? If so, how steeply tiered should these rates be? If you propose fewer than four tiers, how should the tiered rates transition over time to ensure a reasonable phase-in schedule? If you propose retaining more than two tiers in 2018 and beyond, either as a default or an optional rate, please discuss the rationale for retaining three or more tiers.

## Response to Question 4

PG\&E's standard rate design request for 2018 includes two tiers for both non-CARE and CARE rates, with a price ratio of 1.2:1 between the tiers. PG\&E proposes a reasonable, gradual transition to these 2018 rates over the transition period, with a reduction to three tiers in 2015 followed by an additional reduction to two tiers in 2018. After 2018, PG\&E reserves the right to propose further changes to the standard rate design structure, consistent with statutory restrictions.

## Question 5

Does your rate design request propose default time-of-use (TOU) rates beginning January 1, 2018 or thereafter? Why or why not?

## Response to Question 5

PG\&E's rate design request does not propose default TOU rates beginning in 2018.

PG\&E agrees with the CPUC's rate design principle number six, ${ }^{4}$ that rates should provide customers with a choice, and PG\&E believes that awareness of rate options is required for customers to truly make a choice. By offering two, simple options, such as a two-tiered non-TOU and a non-tiered TOU rate plans, PG\&E's customers who are aware of their options can make an affirmative

[^2]choice to enroll in the rate plan that works best for them in terms of their desire to save money on their bill and their preferences for, and ability to effect, load shifting and load reduction.

Offering residential electric customers a simpler, optional, two-period TOU rate plan starting in 2015 will continue to build a population of engaged customers-and PG\&E views customer engagement as a key driver in achieving the important policy objective of peak load shifting. 5 To engage customers, residential rate design must balance simplicity, efficiency, and stability. Ease of understanding is crucial to the success of moving more customers to TOU rates. Currently, over 100,000 residential customers are on tiered three-period TOU rates and the only open residential TOU rate, Schedule E-6, is adding about 800 to 900 participants per month. ${ }^{6}$ PG\&E's intent is that significantly more residential customers opt-in to the simpler TOU rate plans over the next several years. ${ }^{7}$

PG\&E's proposed optional non-tiered TOU rate plan is designed with the objectives of achieving meaningful load impacts and increasing customer engagement beginning in 2015.8

An initial evaluation of large-scale residential TOU programs indicates that a pilot program for PG\&E's customers is warranted prior to a CPUC decision on whether or not to pursue default TOU for residential customers. PG\&E's

5 PG\&E has completed a benchmarking study that suggests that customers who are able to choose their rate plan, as opposed to being defaulted onto a rate plan, tend to be more engaged and satisfied and, therefore, are more likely to provide peak load reduction and other more efficient uses of energy. More details on this study are found in Chapter 2, Section G, of this testimony.
6 Customers are discovering the availability of TOU primarily through solar providers and online rate analysis tools.
7 Per the February 13, 2014 ACR, on March 21, 2014, PG\&E will describe its plan to attract customers to opt-in TOU prior to 2018, including customer communication, outreach and education.
8 Hiner \& Partners was retained by PG\&E, SCE and SDG\&E to conduct a survey to improve understanding of customer perceptions of current and possible future rate structures and potential bill impacts. An online survey of approximately 5,300 electric customers was fielded in February and March of 2013, through a market research panel company employing quotas to ensure the sample was representative of the IOU customer population. The survey concluded that customers prefer simpler rate plan structures: flat, two-tier and two-period TOU rate plans were preferred relative to three-tier and three-period plans. ("RROIR Customer Survey Findings,"
Hiner \& Partners, April 16, 2013, p. 18.)
"customer choice" approach is better supported by experiences around the world with default and opt-in residential TOU programs. PG\&E's testimony describes the benchmarking effort performed by eMeter Strategic Consulting (ESC) with the majority of jurisdictions around the world that have or have had substantial numbers of residential customers on TOU rates. The experiences of the large-scale roll-outs of opt-in and default residential TOU programs reviewed in that benchmarking study, provide important insights on the best approaches to transitioning residential customers to TOU rates. ${ }^{9}$ Examination of the results of those programs shows that maximizing participation through default may not necessarily achieve load-shifting objectives better than an opt-in approach, over time. Figure 2-19 below shows aggregate load impacts for the large-scale residential TOU programs included in the benchmarking effort. Individual load impacts have been adjusted to represent the program's overall impact on system peak.

[^3]FIGURE 2-19
PACIFIC GAS AND ELECTRIC COMPANY MW REDUCED PER MILLION CUSTOMERS


## Question 6

Regardless of whether you propose defaulting customers to a TOU a rate, please explain why default TOU rates should or should not be tiered?

## Response to Question 6

TOU rates generally should not be tiered because: (a) tiered rates do not reflect cost of service; and (b) tiering introduces complexity and confusion for customers that detracts from and reduces the simplicity, understandability and efficiency of the price signals provided to customers by the TOU component of the rates. PG\&E customer surveys have already shown that customers do not understand basic tiered rates; having tiers within TOU periods causes an exponential increase in rate complexity. 10

## Question 7

If you are proposing default TOU in 2018, what is your proposed opt-out rate or rates? For tiered rates, how many tiers are included and how steeply tiered are they?

10 PG\&E Residential Rate Tier Survey June 2012, King Brown Partners, p. 30. Those customers that do understand tiered rates are not aware of the "tier" price signal, or how they would adjust their energy usage behavior if they received a real-time tier price signal. They are, however, aware when their bills go up significantly (+10 percent) and are frustrated because they don't know what they can do to lower the bill. The concept of baseline quantity is complicated.

## Response to Question 7

PG\&E is not proposing any default TOU rate plans for its residential customers in 2018. In addition to a two-tiered rate with a ratio of 1.2:1 between the tiers, customers would have a choice of a simple, non-tiered TOU rate option, as well as a choice of SmartRate as an overlay on either the standard two-tiered rate or the opt-in, non-tiered TOU rate.

## Question 8

Prior to 2018, does your rate design request include optional TOU rates? Please explain whether and why these optional TOU rates should be tiered or not. If your proposal includes optional TOU rates with fewer tiers than the default rate, do you expect some amount of revenue shortfall associated with higher cost upper tier customers migrating to the TOU rate? How would you handle that revenue shortfall? Should the optional TOU rates remain revenue neutral to the default rate during the 2015-2018 transitional period? Why or why not? What about after 2018?

## Response to Question 8

Yes, PG\&E is proposing to introduce an opt-in TOU rate with no tiers, beginning in 2015 and continuing beyond 2018. This new TOU rateSchedule E-TOU11 -will also be available to CARE customers at a 35 percent discount on the energy rate, plus a $\$ 2.50$ monthly service fee.

PG\&E's benchmarking efforts, as well as the Customer Survey conducted in spring of 2013 as part of this proceeding, have provided substantial insight into customer preferences for, and performance on, particular TOU rate designs. This research shows that a simple, non-tiered optional TOU rate is more likely to attract customer enrollment, as it is easier for customers to understand. Further, opt-in non-tiered TOU rates provide price signals on which engaged customers who have chosen to be on the rate are likely to take action to reduce or shift loads. PG\&E is proposing to phase out, and by 2016 eliminate, its existing tiered TOU rate options, $\mathbf{1 2}$ in favor of the new, more cost-based, non-tiered Schedule E-TOU.

11 "E-TOU" is the interim name for this non-tiered TOU rate. PG\&E intends to rename this schedule upon completion of customer research around meaningful rate plan names.
12 The tiered TOU rate options include Schedules E-6, E-7, EL-6 and EL- 7.

Currently, residential customers are given multiple sets of prices (in the form of tiers) for the same TOU period. All customers are charged the lowest price level at the beginning of each month, but this price can increase throughout the course of the month for many customers based on their total usage, and without regard to when during the day or night they use electricity, only to reset to the lowest level on the first day of the following month. As a result, some customers can pay a significantly lower rate for summer peak usage than other customers pay for summer off-peak usage. This is economically illogical and inefficient. For example, a customer could desire, on the 26th of the month, to use outdoor lighting to enhance night time security between the hours of 2:00 a.m. and 4:00 a.m. However, because it is near the end of the month, this customer is required to pay a high tiered rate that bears absolutely no relation to actual cost. Table 2-10 demonstrates the current problem embedded in the Schedule E-6 rate design. This problem also exists for Schedules EL-6, E-7 and EL-7.

TABLE 2-10
PACIFIC GAS AND ELECTRIC COMPANY SCHEDULE E-6 SUMMER TOU RATES (\$/KWH) AS OF JANUARY 1, 2014

| Line No. | Energy Rates | Peak | Part-Peak | Off-Peak |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Summer Rates |  |  |  |
| 2 | Baseline Usage | 0.287 | 0.175 | 0.101 |
| 2 | 101\%-130\% of Baseline | 0.305 | 0.193 | 0.119 |
| 3 | 131\% - 200\% of Baseline | 0.478 | 0.366 | 0.291 |
| 4 | Over 200\% of Baseline | 0.518 | 0.406 | 0.331 |
| 5 | Winter Rates |  |  |  |
| 6 | Baseline Usage | NA | 0.121 | 0.105 |
| 7 | 101\%-130\% of Baseline | NA | 0.139 | 0.123 |
| 8 | 131\%-200\% of Baseline | NA | 0.312 | 0.296 |
| 9 | Over 200\% of Baseline | NA | 0.352 | 0.336 |

As shown in Table 2-10, Schedule E-6 Tier 3 and Tier 4 customers pay more for electricity at 3:00 a.m. than Tier 1 customers pay at 3:00 p.m. during the summer. They even pay more in the winter, when loads are significantly below those in both the summer peak and summer part-peak periods, than a Tier 1 customer pays for peak power in the summer. In addition, Schedule E-6 customers are confronted with a confusing array of prices depending on which tier they are in, something that can only be ascertained by either checking their
usage online in My Energy, or by receiving an email or text from PG\&E informing them that they are entering a higher tier.

In contrast, customers would be very clear about the price they would pay under a non-tiered TOU rate design. They know whether today is a weekday or weekend. They know whether today is the summer or winter. As for the time of day, they only need to look at their watch or cell phone. Only one price applies at a time, instead of the current four-tiered prices. It is also very clear to customers from the simplified rates that the summer on-peak price is not only the most expensive price, it is nearly double that of the winter off-peak price. The message of a non-tiered TOU rate is simple: reduce summer peak period usage.

The optional rate should be designed and kept as revenue neutral with the class to avoid cross subsidies inside of the residential class, as is the case with the current Schedule E-7 rate design, where approximately $\$ 17$ million a year of cross subsidy is built into that rate, because it was not designed to be revenue neutral with the residential class. PG\&E believes that the optional non-tiered TOU rate should stay revenue neutral at least through the transition period.

By eliminating tiers and their inclining block structure, PG\&E's new Schedule E-TOU rate is more cost-based than PG\&E's existing tiered TOU rates. However, because the Schedule E-1 rates will still have high top-tier rates in 2015, there is a potential for revenue loss due to migration of upper-tier consuming customers to the non-tiered Schedule E-TOU. To the extent such shortfalls occur, they will be recovered within the residential class over an appropriate period of time and enrollment in Schedule E-TOU will be temporarily capped as appropriate.

## Question 9

What other optional residential tariffs are you proposing either in this proceeding or in other proceedings? Do you propose additional optional time-variant pricing options that would take effect between 2015 and 2018 ? If yes, then describe these rates, e.g., critical peak pricing, electric vehicle rates, etc. Include specific details on: peak event period timing and pricing, event notification, and rate structure.

## Response to Question 9

In addition to an opt-in, non-tiered TOU rate, PG\&E proposes to continue its residential CPP program, SmartRate (Schedule E-RSMART) throughout the transition period.

SmartRate is an optional demand response program that PG\&E customers may choose as an "overlay" to either their standard rate or optional TOU rate. PG\&E currently provides service to over 118,000 customers under this opt-in demand response tariff, making it the largest residential CPP program in the nation.

SmartRate is a "carrot and stick" program under which participating customers' ordinary bills are adjusted through supplemental charges and credits. Specifically, SmartRate participants pay higher prices on a limited number of "Smart Days" each year, usually on hot summer afternoons. These higher prices are offset by two separate rate credits that apply to most of the customer's other summer-season usage. The first rate credit applies to all of the participating customers' June through September usage except during Smart Day event hours. The second-called a "participation credit"-applies only to their usage above 130 percent of baseline during the same June through September period. The higher charge on Smart Days, as well as the first credit that applies to usage regardless of tier, will be unaffected by PG\&E's tier collapse proposal. However, the participation credit will need to be modified, since it is applicable today to usage above 130 percent of baseline, and that will no longer be a tier boundary. Instead, for customers on tiered rates, PG\&E proposes that the participation credit apply to all usage over 100 percent of baseline. Because more kilowatt-hours (kWh) would be eligible for the credit, PG\&E proposes to reduce its value from today's level of 1.0 cents per kWh to 0.75 cents per kWh. For customers on PG\&E's new non-tiered optional TOU rate, Schedule E-TOU, PG\&E proposes that the participation credit apply to all usage, but be further reduced to 0.5 cents per kWh . These changes would preserve the approximate magnitude of the currently effective SmartRate participation credit for all participants, with the reductions approximately reflecting the increased number of kilowatt-hours that will now be eligible to receive these credits.

For customers with electric vehicle charging loads, PG\&E proposes to retain its existing non-tiered TOU rate option, Schedule EV, but modify it to add a monthly service fee (at the same levels proposed over time for standard rate Schedule E-1). PG\&E's tiered TOU rate option for electric vehicles will be eliminated, as previously directed by the Commission.

## Question 10

How should the Commission ensure that any TOU rate schedule does not cause unreasonable hardship for senior citizens or economically vulnerable customers in hot climate zones?

## Response to Question 10

By adopting PG\&E's proposed opt-in approach to TOU rates, the CPUC will ensure that senior citizens and economically vulnerable customers in hot climate zones will be able to choose among TOU and non-TOU rate offerings, based on their individual operating characteristics and needs as related to energy use, as well as their individual economic circumstances. PG\&E will include robust customer education and outreach in order to provide customers with relevant information upon which to base their choices. Under PG\&E's approach, no customer-including senior citizens and economically vulnerable customers in hot climate zones-would be defaulted onto any TOU rate that they did not choose.

## B. Fixed Charges, Demand Charges and Minimum Bills

## Question 11

If your proposal contains fixed charges, demand charges, or minimum bills that are higher than current minimum bills, describe such charges, and why they are appropriate. Please state whether such charges reflect different costs of serving multi-family vs. single-family customers, or other cost-based distinctions among residential households. If no such cost-based distinctions among residential households should apply with respect to fixed charges, demand charges, and/or minimum bills, please explain your rationale for reaching that conclusion.

## Response to Question 11

For non-CARE customers, PG\&E is proposing to introduce a $\$ 5.00$ monthly service fee in 2015 to help cover fixed costs. PG\&E proposes to increase it to $\$ 10.00$ in 2016, and to thereafter increase it by the Consumer Price Index
(as authorized by $A B 327$ ). PG\&E is proposing similar monthly service fees for CARE customers, at half the non-CARE levels. These charges would in general replace today's minimum bill amount charges. ${ }^{13}$ PG\&E is not proposing demand charges for residential customers, nor is it proposing separate monthly service fees for single- and multi-family customers. 14 The remainder of this response is taken from Chapter 2, Section B, of PG\&E's testimony, describing why a fixed monthly service fee is appropriate.

A fundamental principle for an equitable rate design is that rates should reflect cost of service, so that customers pay bills roughly consistent with how the utility incurs the costs to serve its customers. ${ }^{15}$ The cost of providing electric service to residential customers has both fixed and variable elements. For example, the cost of printing and mailing a bill does not vary with a customer's monthly usage. Indeed, PG\&E incurs this cost each month even if a customer uses no electricity at all. An appropriate cost-based rate design would thus charge customers for this and other fixed costs via a fixed monthly charge, or service fee, and employ a variable charge or charges (e.g., separate prices for different TOU periods) to collect variable costs that do differ depending upon the customer's usage. ${ }^{16}$ All of PG\&E's rates for non-residential customers

13 However, PG\&E proposes that a zero minimum bill would continue to apply on delivery charges on all residential rate schedules to ensure no negative bills (as is currently the case with Schedules E-7, EL-7 and EL-8).
14 By not proposing different monthly service fee levels for single- and multi-family customers, PG\&E is not concluding that fixed costs do not differ between such dwelling types. They may. But there are practical problems with defining how to make such distinctions (e.g., answering the question, "Is a duplex unit considered single- or multi-family?"), and disputes will arise. Moreover, fixed cost differences may be more a function of the customer's panel size than dwelling type. Since it has not evaluated the degree to which differences in fixed costs might be related to different customer characteristics, PG\&E decided to propose a simple monthly service fee that applies to all customers. PG\&E reserves the right, in a future proceeding, to propose differentiated monthly service fees based upon cost of service characteristics.
15 See Bonbright, Danielson and Kanerschen, Principles of Public Utility Rates, specifically, Chapter 5, entitled "Cost of Service as a basic standard of reasonableness." Also see R.12-06-013 Attachment A of the Administrative Law Judge (ALJ) Ruling dated March 19, 2013, where the CPUC stated that rates should be based on cost-causation principles.
16 Marginal customer costs, which include revenue cycle services costs, are driven by the number of customers served. In addition, as described below, there are other quasi-fixed costs that are driven by customer coincident and non-coincident kW loads, independent of kWh usage.
include such a rate component to help cover fixed costs. However, to date, PG\&E's residential electric rates, do not do this. Instead, all costs are collected through variable (sometimes called volumetric) energy charges. This rate structure is not cost-based, since low users do not pay their fair share of the fixed costs they impose on the system, and high users pay an unfairly high share of those costs.

A monthly fixed fee to recover fixed costs of utility service is a key tool for fulfilling the very important ratemaking principle that rates should be based on cost causation. In the context of residential rate design, there are a number of categories of costs that do not vary with the volumes of kWh consumed by customers. First, there are customer access and revenue cycle service costs that, for non-residential customers, are generally collected via monthly fixed charges. These include the costs of connecting a customer to the grid and maintaining that connection and service to the account-including metering, preparing and sending bills, processing payments, providing service center resources, and other grid-related costs. Second, there are capacity-related costs associated with generation, transmission, and distribution assets. These generation and grid costs are driven by customers' coincident and non-coincident demands on the PG\&E system, and for non-residential customers are generally collected via demand charges. 17 For a customer class like residential, though, where demand charges are not currently employed, it is more appropriate to collect these types of costs through a fixed monthly charge rather than through volumetric charges-since the costs are incurred by the utility on behalf of each individual customer and do not change based on the volume of electricity that the customer consumes.

In situations where certain costs are fixed and cannot be avoided, setting a rate to recover these costs through monthly fixed fees, rather than through volumetric rates, more appropriately reflects cost causation, and supports more equitable recovery of PG\&E's fixed costs among customers. These fixed costs should be paid by all customers, rather than shifted unfairly from some onto

[^4]others, as is currently the case. Consistent with this fair and efficient costcausation principle, the CPUC has approved fixed fees for every single one of PG\&E's non-residential rate schedules-in recognition that this is an appropriate way to collect fixed costs. Because PG\&E incurs these same types of fixed costs to serve residential customers, a monthly fixed fee that similarly does not vary with consumption would be appropriate for these customers as well.

In addition, a monthly service fee provides revenue that allows for a reduction in higher tiered volumetric rates, providing for further movement of overall residential electric rates towards cost. Thus, establishing a monthly service fee will help mitigate the inequity in the current inclining block rate design and the associated rate disparities between the lower and higher tier non-CARE rates and between CARE and non-CARE rates.

The Energy Division (ED) Report recognizes the need for a fixed charge, and recommends either a monthly fixed fee or a monthly minimum bill amount, as a means to more appropriately collect fixed costs from customers. PG\&E has analyzed the introduction of a monthly service fee, instead of a minimum bill, and concluded that a monthly service fee is a superior alternative to a minimum bill amount. ${ }^{18}$ First, fixed costs are incurred to serve all customers. Consistent with this cost-causation, a monthly service fee, that is, a fixed amount each month regardless of usage, appropriately applies to all customers. In contrast, a minimum bill amount is applied only to a very small percentage of customers with little or no usage in a given month. For example, for the current minimum bill on PG\&E's residential rate Schedule E-1 to apply, a customer would have to use 34 kWh or less in a month (since 34 kWh times 13.2 cents equals $\$ 4.50$ ). Only about 3 percent of PG\&E's total E-1 customers have usage this low in any given month. Consequently, it yields only a small amount of revenue (less than $\$ 4$ million per year). In contrast, a $\$ 5.00$ customer charge would yield over $\$ 150$ million in annual revenue.

The monthly fixed fee also is more equitable because it charges all customers on a rate schedule the same amount, every month, to cover a portion of PG\&E's fixed costs. For example, a $\$ 5.00$ monthly service fee on PG\&E's

18 It is notable that no rate schedule applicable to PG\&E's non-residential customers employs a minimum bill amount to collect fixed costs. All use monthly fixed fees.
rate Schedule E-1 would apply to each and every customer's monthly bill, regardless of the customer's usage. This is appropriate since the fee is collecting a portion of the fixed costs PG\&E has incurred for every single customer regardless of usage. In contrast, the minimum bill amount artificially "bumps up" different low usage customers' bills by different amounts. In the example above, a customer with zero usage has its bill increased by $\$ 4.50$ for a total bill of $\$ 4.50$, while a customer using 10 kWh would have its bill increased by just $\$ 3.18$ (to get to the same $\$ 4.50$ total bill). Put another way, both customers pay the same total bill of $\$ 4.50$ even though the second one (under the minimum bill) should pay more since the customer is getting the benefit of 10 additional kWh. 19

As noted earlier, there is a spectrum of cost items from fixed to variable. On the one end, there are items like revenue cycle service costs that are clearly fixed. At the other end are items like as-available energy that are clearly variable. In between are capacity costs (for generation, transmission and distribution) that are demand-related, but in the absence of a demand charge are more fixed than variable. Finally, there are costs like the administrative costs of offering energy efficiency programs to customers that are not driven by kWh usage but have traditionally been collected via a volumetric charge. PG\&E believes that many (if not all) of these cost items (e.g., capacity costs, program costs, etc.) would more appropriately be collected with fixed charges than with variable ones. In this proceeding, however, AB 327's $\$ 10$ limit on the maximum allowable fixed month charge makes the issue of which costs are fixed somewhat moot. This is because, even if you define fixed costs in the most narrow way, to include just the Equal Percentage of Marginal Cost (EPMC) adjusted residential marginal customer costs, they would exceed $\$ 10$. In PG\&E's 2014 GRC Phase II proceeding, PG\&E recently updated its estimate of the marginal customer cost for the residential class. The EPMC adjusted residential marginal customer cost estimate is $\$ 198.09$ per customer-year, or $\$ 16.51$ per customer-month. 20 So at $\$ 10.00$ per month, the fixed monthly fee

[^5]20 See PG\&E's August 16, 2013 update testimony in the 2014 GRC Phase II proceeding.
still will not collect all of PG\&E's fixed costs to serve residential customers, even with fixed costs defined in the most narrow way.

Table 2-3 shows PG\&E's proposed levels of monthly service fees for non-CARE and CARE rates schedules over the transition period. Consistent with $A B 327$, which permits the Commission to approve a monthly fixed fee beginning January 1,2015, PG\&E is proposing to introduce monthly service fees of $\$ 5.00$ and $\$ 2.50,21$ respectively, on its non-CARE and CARE rates beginning in 2015.22 A monthly service fee will begin the process of making PG\&E's residential rates more cost-based, by starting to collect at least a portion of PG\&E's fixed costs of service through a fixed monthly charge. In 2016, PG\&E is proposing to increase these monthly service fees to $\$ 10.00$ for non-CARE and $\$ 5.00$ for CARE. In 2017 and 2018, the monthly service fees would be adjusted according to the year-over-year change in the California CPI. 23 The levels of these proposed monthly service fees are fully consistent with the limits on fixed charges in $A B 327$, which allow for levels up to $\$ 10.00$, adjusted upward by the CPI (and half those levels for CARE). These charges would, in general, replace today's minimum bill amounts. 24

21 AB 327, Section 739.9(f) specifies that: "the commission may, beginning January 1, 2015, authorize fixed charges that do not exceed ten dollars (\$10) per residential customer account per month for customers not enrolled in the CARE program and five dollars (\$5) per residential customer account per month for customers enrolled in the CARE program. Beginning in January 2016, the maximum allowable fixed charge may be adjusted by no more than the annual percentage increase in the CPI for the prior calendar year."
22 All residential rate schedules except E-8, which already has a fixed monthly service fee. For multi-family rate schedules, the monthly service fee would be calculated based on the number (and mix, between non-CARE and CARE) dwelling units served by each account.
23 For the purpose of developing illustrative levels of the monthly service fee in 2017 and 2018, PG\&E assumed the CPI increases at 2.1 percent per year, as directed in the February 13, 2014 ACR.
24 However, PG\&E proposes that a zero minimum bill would continue to apply on delivery charges on all residential rate schedules to ensure no negative bills (as is currently the case with Schedules E-7, EL-7 and EL-8).

TABLE 2-3
PACIFIC GAS AND ELECTRIC COMPANY PROPOSED MONTHLY SERVICE FEES

| Line No. | Rates Schedules | $\begin{aligned} & \text { Summer } \\ & 2014 \end{aligned}$ | 2015 | 2016 | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Non-CARE | None | \$5.00 | \$10.00 | \$10.21 | \$10.42 |
| 2 | CARE | None | \$2.50 | \$5.00 | \$5.11 | \$5.21 |

## Question 12

Should such charges be phased in over time concurrent with other changes proposed herein? If so, on what timetable?

## Response to Question 12

Yes, a fixed charge should be phased in. For non-CARE customers, PG\&E is proposing to introduce a $\$ 5.00$ monthly service fee in 2015 , increasing it to $\$ 10.00$ in 2016, and thereafter increasing with the CPI (as authorized by AB 327). PG\&E is proposing similar monthly service fees for CARE customers, at half the non-CARE levels. These charges would, in general, replace today's minimum bill amount charges. PG\&E is not proposing any residential demand charges.

## Question 13

For any proposed fixed charges address how your proposed charges satisfy the following criteria contained in AB 327:

- Reasonably reflect the different costs of serving small and large customers
- Not unreasonably impair incentives for conservation, customer generation, and energy efficiency
- Not overburden low-income customers.


## Response to Question 13

## a. Costs of Serving Small vs. Large Customers

Because PG\&E's fixed costs, even for small customers, exceed the levels of its proposed monthly service fees, and because of the current statutory cap on such fees, PG\&E is not proposing to differentiate its
proposed fixed monthly service fee by customer size. $\mathbf{2 5}^{5}$ In addition, because higher usage customers will continue to pay tiered rates through 2018 that exceed the average costs of serving those customers, PG\&E's overall rate structure will result in some continued crosssubsidies by large customers to small customers even if there were a measurable difference in fixed costs between small and large customers. These subsidies will, however, be significantly reduced during the transition period, as the tiers move closer together and get collapsed to two tiers by 2018.

## b. Incentives for Conservation

As PG\&E described earlier in this proceeding (in its May 29, 2013 Rate Design Reform Proposal), the conventional wisdom is that introducing a fixed monthly charge, by reducing volumetric charges, will result in customers having a reduced incentive to conserve. But this theory assumes that residential customers respond to marginal prices (i.e., the price in the tier in which they are currently consuming) while making consumption decisions. Recent research by Dr. Koichiro Ito, though, has shown this assumption does not seem to hold true in practice. ${ }^{26}$ Rather, the research strongly suggests that customers respond to average rates rather than marginal rates. The addition of a customer charge will increase the average rate paid by customers in the lower tiers and decrease the average rate in the upper tiers. 27 So while

25 By not proposing size-differentiated monthly service fee levels, PG\&E is not saying that fixed costs might not differ by customer size. Since it has not evaluated the degree to which differences in fixed costs might be related to different sizes, however, PG\&E decided to propose a simple monthly service fee that applies to all customers. PG\&E reserves the right, in a future proceeding, to propose differentiated monthly service fees based upon size or other cost-based customer service characteristics.
26 See Koichiro Ito, "Do Consumers Respond to Marginal or Average Price? Evidence from Nonlinear Electricity Pricing" (Revised October 2012), Energy Institute at Haas, http://ei.haas.berkeley.edu/pdf/working_papers/WP210.pdf.
27 The average rate paid by a customer depends upon its usage level. Since PG\&E's proposal is to use the additional revenues from the monthly service fee in large part to reduce upper-tier rates, the average rates paid by households consuming in the upper tiers will generally decrease with the introduction of the monthly service fee to help cover fixed costs. However, the average rates paid by households consuming in the lower tiers will increase.
upper-tier consuming households will have a reduced incentive to conserve, lower-tier consuming ones will have an increased incentive to do so-and it is an empirical issue which of these effects prevails. Given the preponderance of customers and sales in the lower tiers compared to the upper tiers, the effect of introducing a fixed monthly fee might well be expected to reduce overall residential usage, or at least leave it at about the same level. 28

## c. Not Overburden Low-Income Customers

PG\&E's proposed monthly service fee is lower for CARE customers than for non-CARE customers, in recognition of the need to consider potential burdens on low income customers. In addition, PG\&E's evaluation of the overall bill impacts of its rate design proposal on CARE customers, including the reduced monthly service fee, indicates that low income customers will not be overburdened by the proposed monthly service fee for CARE customers.

## C. CARE, Family Electric Rate Assistance (FERA), and Medical Baseline

 ProgramsCARE structural changes will be dealt with in a later phase of this proceeding or in the next CARE and Energy Saving Assistance Program proceeding. Phase 1 of this proceeding will deal with the level of CARE discount. A subsequent phase or separate proceeding will address how that discount should be structured, i.e., using any of the four models identified in the ED Staff Proposal or other approaches.

## Question 14

What level of CARE discount are you proposing for the years 2015-2018, and how will your CARE proposal satisfy the following criteria in 2015 and in subsequent years:

[^6]a) The average effective CARE discount shall not be less than 30 percent or more than 35 percent of the revenues that would have been produced for the same billed usage by non-CARE customers.
b) That low-income ratepayers are not jeopardized or overburdened by monthly energy expenditures, pursuant to subdivision (b) of Section 382.
c) That the level of the discount for low-income electricity ratepayers correctly reflects the level of need as determined by the needs assessment conducted pursuant to subdivision (d) of Section 382.
d) If the level of CARE discount is current above 35 percent, the currently effective discount in excess of this amount should be reduced by a reasonable amount on an annual basis.

## Response to Question 14

a) PG\&E proposes to gradually reduce its CARE discount, resulting in approximate CARE discounts of 43 percent in 2015, 39 percent in 2016, 36 percent in 2017 and 35 percent in 2018.29
b) PG\&E's average energy burden for low-income customers has been statistically unchanged, when comparing results under the Overall Energy Burden 30 methodology between the 2007 and 2013 Low-Income Needs Assessment reports. ${ }^{31}$ Specifically, using the same methodology KEMA Inc., used in its 2007 study on the low-income energy burden in 2003,32 the Evergreen Economics 2013 Report found that the overall energy burden for California's low-income customers was essentially unchanged at 4.1 percent in 2013 compared to 4.2 percent in 2003.

[^7]c) Evergreen Economics also calculated the "customer energy burden," which gives equal weights to each customer's energy burden by separately dividing each customer's energy bill by its total income, then taking the average of each customer's energy burden and accumulating those numbers. This showed the energy burden for PG\&E's low-income customers to be 9.9 percent in 2013 vs. the national average of 13.6 percent in 2007, as calculated for the Low-Income Home Energy Assistance Program (LIHEAP.) ${ }^{33}$ However, the calculations by both Evergreen Economics and LIHEAP did not specifically take into account any of the other income assistance already received by low-income customers, such as the Earned Income Tax Credit, Supplemental Nutrition Assistance Program (food stamps), Section 8 housing subsidies, school lunch programs, etc. ${ }^{34}$ When these additional sources of income are taken into account, the effective energy burden for PG\&E customers will be less than the 9.9 percent shown here. Even so, PG\&E's customer energy burden remains substantially below the LIHEAP national average taken in the year prior to the onset of the "Great Recession."

PG\&E calculated bill-to-income ratios for CARE customers for the rates PG\&E proposed for Summer 2014, as well as for where PG\&E would be in 2018 if Phase 1 proposals are adopted. Figure 2-5 shows that under PG\&E's proposed Summer 2014 CARE rates, 90 percent of CARE customers will spend less than 6.6 percent of their income on electricity, based on their 2009 income from the RASS. For rates as of 2018, the percentage of income that a CARE customer would spend on electricity would increase to about 8.8 percent under PG\&E's proposal in this proceeding. This 8.8 percent 2018 figure is below the 13.6 percent national average energy burden shown in the Evergreen Economics December 2013 Needs Assessment.

[^8]However, this analysis holds income constant at 2009 levels while increasing rates each year. In addition, it does not include the impact of two scheduled increases in the California minimum wage currently received by 3 million Californians. The first is a 12.5 percent minimum wage increase-to $\$ 9.00$ per hour—scheduled for July 2014. The second is an 11.1 percent increase-to $\$ 10.00$ per hour-scheduled for January 2016. ${ }^{35}$ As a result, the bill-to-income ratio calculated for 2018 is overstated.

FIGURE 2-5
PACIFIC GAS AND ELECTRIC COMPANY
BILL TO INCOME RATIO FOR CARE CUSTOMERS(a) MAY 2014 VS. 2018
(a) Income was held constant at 2009 levels.

[^9]d) PG\&E proposes to gradually reduce its CARE discount, resulting in approximate CARE discounts of 43 percent in 2015, 39 percent in 2016, 36 percent in 2017 and 35 percent in 2018.36 This proposal builds on PG\&E's RROIR Phase 2 proposal that began the process of complying with AB 327 by gradually transitioning CARE rate discounts to the required range of 30 percent to 35 percent.

## Question 15

Describe how you propose to structure and operate the FERA program in each year of your rate design proposal.

## Response to Question 15

PG\&E's proposal to reduce the number of tiers by combining current Tiers 2 and 3 also has implications for customers on the FERA program. On Schedule E-FERA, qualifying customers currently pay the standard rate for usage up to 130 percent of baseline, and also pay the standard rate for usage in excess of 200 percent of baseline. However, FERA customers only have to pay the Tier 2 rate (instead of the Tier 3 rate) for usage between 130 and 200 percent of baseline. At current Schedule E-1 rate levels, this represents a discount of about 17 cents per kWh for current Tier 3 usage (a 53 percent discount). This is a rather convoluted way to provide a FERA discount, with usage in the lowest two tiers and in the highest tier charged at the standard rate while usage in a "middle" tier (current Tier 3) receiving a very large 17-cent-per-kWh discount.

In this Phase 1 rate reform proposal, PG\&E proposes to simplify the FERA discount by making it a constant percentage off a FERA customer's bill calculated at standard rates, so that households will receive a discount regardless of the tier in which they are consuming. ${ }^{37}$ PG\&E has calculated that, over the last five years, FERA customers on average have received a discount of 12.5 percent off their bills. PG\&E is proposing the FERA discount consist of a simple 12.5 percent discount off a bill calculated at standard rates, starting in

36 PG\&E reserves the right to make additional proposals for post-2018 adjustments to ensure PG\&E's effective CARE discount remains within the 30 percent to 35 percent range required under $A B 327$.

37 Under today's rates, households consuming less than 130 percent of baseline receive no discount at all.
2015. This simplified proposal would replace today's confusing FERA discount structure and ensure that all FERA customers receive an identical percentage discount regardless of their usage level.

## Question 16

Describe how you propose to structure and operate the Medical Baseline program in each year of your rate design proposal.

## Response to Question 16

PG\&E's proposal to collapse Tiers 2 and 3 into a single Tier 2 (for usage between 100 and 200 percent of baseline) for has implications for Medical Baseline customers. Currently, Medical Baseline customers receive both augmented baseline quantities and a discount on usage in excess of 200 percent of baseline. Specifically, they only pay the current Tier 3 rate for their current Tier 4 usage, which represents a four cent per kWh discount. PG\&E proposes to continue this 4-cent-per-kWh discount for Medical Baseline customers on usage in excess of 200 percent of baseline under its proposed three-tier structure. So, under PG\&E's Phase 1 rate reform proposal, in each year during the transition period, Medical Baseline customers would continue to pay the standard rates for usage up to 200 percent of their adjusted baseline and receive a four cent per kWh discount on the standard rate applicable to usage in excess of 200 percent of their adjusted baseline-just as they do today.

## D. Greenhouse Gas (GHG) Costs Embedded in Residential Rates

## Question 17

When do you propose to embed GHG costs in residential rates?

## Response to Question 17

PG\&E's revenue requirement for GHG costs is currently scheduled to be included in PG\&E's residential rates beginning May 1, 2014 in accordance with the Commission's GHG decisions, including D.13-12-041 and the subsequent GHG cost and revenue implementation letter issued by Energy Division on January 28, 2014. PG\&E's future GHG forecast revenue requirements will be embedded in its ERRA-forecast application, and will be allocated among all residential electric customers in accordance with PG\&E's rate design proposal as approved in this and other rate design proceedings, in the same way all other procurement costs are allocated.

## Question 18

Quantify the rate impact of including GHG costs in residential rates.

## Response to Question 18

PG\&E anticipates that GHG costs will go into residential rates for the first time in May 2014 and will recover all of the forecasted GHG costs for 2014 and half of the costs for 2013. PG\&E is currently estimating that this will result in a 2.3 cent increase to the non-CARE Tierridat rates, with no change to the non-CARE Tier 1 and 2 rates or to the CARE rates in any tier. However, there is an offsetting GHG credit, that similarly is limited to non-CARE Tier 3 and 4 sales that will offset these increases.

With rate reform, PG\&E anticipates that, starting in 2015, the GHG costs will be shared by all customers on an equal cents per kWh basis (like other generation costs are today), which would reduce their size to about one-fourth of this 2.3 cent level.

## Question 19

How would proposed rate design changes affect the IOU's ability to meet or exceed Commission-adopted energy efficiency (EE) and demand response (DR) goals?

## Response to Question 19

PG\&E's rate design changes will maintain and potentially enhance PG\&E's and PG\&E customers' ability to meet or exceed EE and DR goals. This is because PG\&E's proposed changes will gradually eliminate distortions in today's existing rate design structure, which currently cause many residential customers to pay amounts that are significantly lower than the cost to serve them. Once residential customers are subject to rates that more accurately reflect the cost of serving them on a monthly (as well as on a TOU) basis, communications on EE and DR programs will empower customers to make more informed decisions about their participation and engagement in such programs, and also to more clearly see and correlate the benefits of their actions through their bills.

## Question 20

If you are proposing or piloting new EE measures for use of programmable and communicating thermostats (and other similar devices) please describe such efforts and discuss how such EE measures are or should be coordinated with efforts to encourage adoption of TVP rates.

## Response to Question 20

PG\&E is investigating the opportunity to launch a residential programmable communicating thermostat (i.e., Smart Thermostat) measure-which would initially be used in conjunction with PG\&E's demand response SmartRate program-to help our residential customers better manage their energy use. This product is expected to offer energy efficiency and demand response incentives to eligible customers who purchase a qualified Smart Thermostat that has energy efficiency savings and is compliant with the OpenADR 2.0b industry DR standard. Residential customers would receive an energy efficiency rebate for installation of a qualifying thermostat, and would be eligible for an additional DR incentive if they enroll in SmartRate (PG\&E's residential CPP rate plan), and sign up for AutoDR. This will further encourage adoption of SmartRate—which already has over 118,000 participants, including about 39,000 SmartAC ${ }^{\text {TM }}$ customers-while also promoting the expected energy efficiency benefits of the Smart Thermostat product.

In addition, PG\&E's customer outreach and education for its opt-in TOU rates will coordinate with EE measures by including significant and beneficial information on PG\&E EE programs that can help customers save money and energy on TOU rates.

## Question 21

Please quantify and discuss the impacts of any rate design changes on customer participation and load impact in EE, DR, and distributed generation (DG) programs (for example estimate the elasticity factor and Ex-Ante load impact to answer this question).

## Response to Question 21

There are many variables that affect participation in EE, DR, and DG programs, including factors exogenous or unrelated to rate design. Therefore, it is difficult to quantify the expected impacts of PG\&E's proposed rate design on customer participation and load impact of PG\&E's EE, DR and DG programs, including elasticity factors and Ex Ante load impacts. However, because PG\&E's rate reform proposal will provide rates and rate options to customers that are priced closer to cost of service and are easier to understand, PG\&E expects that customers will be empowered and motivated to make more frequent and more informed choices on EE, DR, and DG investments.

In addition, PG\&E will monitor and adjust its EE, DR, and DG programs in response to the rate design changes, as it does with any significant rate changes.

## Question 22

How would the proposed rate design changes affect the value of net energy metered facilities for customer generators and the cost borne by non-participants?

## Response to Question 22

PG\&E's proposed rate design will affect the value of net energy metered (NEM) facilities for each customer generator differently. The impact will depend on what rate option the customer is on currently, how much of their annual usage their installation is designed to offset, and the performance of their system. Some customers will be better off, i.e., the value of their NEM investment will increase. Other customers will see their bills go up as a result of the rate design changes, i.e., the value of their investment will decrease. The average customer payback periods for customers installing new solar NEM facilities will increase slightly, while the costs currently shifted to and borne by non-NEM customers will be reduced. Overall, PG\&E expects that the value of NEM facilities to customer generators will continue to sustain the viability of the solar industry, which continues to experience robust growth in response to similar rate design changes. The current NEM structure will be evaluated in a separate CPUC proceeding in accordance with the direction and statutory criteria adopted in AB 327.

## Question 23

Please quantify the bill impacts (including the average, median, and range) of any rate design changes on NEM customers.

## Response to Question 23

The effects of PG\&E's rate proposal on residential NEM customers taking service on will depend upon each customer's specific situation-their rate schedule, baseline quantities and monthly usage levels (and, if on a TOU rate, monthly usage by TOU), and their pattern of monthly exports, if any.

NEM customers' bills could increase or decrease depending on their situation. PG\&E is in the process of developing the bill impacts for NEM customers on its
standard and optional TOU rates and will make those bill impacts available shortly once the work has been completed.

## Question 24

How would the proposed rate design changes impact the value of customer-side distributed energy storage systems?

## Response to Question 24

Customers install energy storage systems for a variety of reasons including: permanent load shifting, demand charge mitigation, and critical system backup. However, to date, very few residential customers have installed storage systems, and many of those have been installed in conjunction with renewable generation to provide back-up power for critical appliances. There is not enough empirical information at this time regarding residential storage market drivers to determine what impact the existing rate design structure and overall bill savings may have had (if any) on the quantitative and subjective value of the energy storage system for the customer. Also, given that storage output is less than storage input, it is not clear that there would be bill savings for the residential customers even without changes to the current rate design structure. However, by bringing PG\&E's residential rates more closely into alignment with the costs of service, PG\&E's rate design proposal will provide all customers with more accurate, valuable pricing information on which to base their assessment of the value of customer-side energy storage.

## E. Additional Details on TOU Rates, Time Periods and Seasons

## Question 25

For any default and optional TOU rate proposed describe in detail:

- Peak to off-peak ratios and semi-peak to off-peak ratios by season
- TOU time periods by season
- Definition of seasons

AB 327 directs the Commission to strive to adopt time periods for TOU rates that are appropriate for at least 5 years.

## Response to Question 25

For PG\&E's proposed optional TOU rate, the summer peak to off-peak ratio is 1.75 to 1 . The winter peak to off-peak ratio is 1.08 to 1 .

PG\&E's proposed voluntary, opt-in, non-tiered TOU rates will include the following time periods and seasonal differentiations:

| Line No. | Time periods | Peak | Off-Peak |
| :---: | :---: | :---: | :---: |
| 1 | Summer (May-October) | 1:00 p.m. to 7:00 p.m., <br> Monday-Friday (Except Holidays) | All Other Hours |
| 2 | Winter (November-April) | 5:00 p.m. to 8:00 p.m., Monday-Friday (Except Holidays) | All Other Hours |

To more easily communicate the need to reduce summer peak usage, PG\&E has proposed that there be just two TOU periods in each season, a peak period and off-peak period. Consequently, PG\&E proposes combining the summer part-peak and off-peak periods into a single off-peak period that would reflect the weighted average of the underlying marginal costs for these TOU periods. Because PG\&E has yet to study the most appropriate future TOU periods for its new E-TOU rate, PG\&E proposes, as an interim measure, to use the same TOU periods as Schedule E-6, except for the summer part-peak and off-peak periods which would be combined into a single period.

PG\&E plans to study TOU periods for its entire service territory across all customer classes during 2014 and will submit a proposal in an upcoming Rate Design Window Proceeding to request CPUC approval for new TOU periods that will be appropriate for at least five years.

# PACIFIC GAS AND ELECTRIC COMPANY 

 APPENDIX E STATEMENTS OF QUALIFICATIONS
## PACIFIC GAS AND ELECTRIC COMPANY STATEMENT OF QUALIFICATIONS OF DENNIS M. KEANE

## Q 1 Please state your name and business address.

A 1 My name is Dennis M. Keane, and my business address is Pacific Gas and Electric Company, 77 Beale Street, San Francisco, California.<br>Q 2 Briefly describe your responsibilities at Pacific Gas and Electric Company (PG\&E).

A 21 am a senior manager in the Analysis and Rates Department, responsible for preparing and managing the preparation of retail electric rate design proposals for presentation before the California Public Utilities Commission (CPUC or Commission).
Q 3 Please summarize your educational and professional background.
A 31 received a bachelor of arts degree in economics (with honors) in 1974 from the University of California at Berkeley, and a Ph.D. degree in economics in 1980 from the University of Wisconsin, Madison.

From 1978-1980, I taught in the Economics Department at the University of Southern California. In 1980, I joined PG\&E as a load research analyst, responsible for preparing PG\&E's class load research reports and designing samples for load profile metering projects. In 1982, I was promoted to coordinator of load research projects, where I managed a number of large-scale load profile metering projects. In 1984, I was promoted to supervisor of load management analysis and operations, responsible for scheduling experimental operations of PG\&E's dispatchable load management programs, as well as estimating their load impacts. In 1988, I became the supervisor of commercial/industrial electric rate design. In 1991, I accepted a position in the Market Planning and Research Department, where I managed a number of projects designed to evaluate the effectiveness and economics of distributed generation and targeted demand-side management programs designed to alleviate peaking problems on the local distribution system. I left PG\&E in 1993 for a position at the consulting firm Freeman, Sullivan \& Company, where I directed the firm's electric utility practice. I returned to PG\&E in 1996 as a senior analyst in the Service Analysis Department, and, in 2000, was promoted to a
manager position in that department. From July 2008 through February 2009, I worked as a principal in the Market Design and Analysis Department, responsible for estimating avoided costs and evaluating demand response cost-effectiveness. In March 2009, I took the position of manager of electric rates in the Analysis and Rates Department. I was promoted to my current, senior manager position in April 2011.

I have previously appeared before the Commission, sponsoring testimony on electric rate design, revenue forecasting, flexible rate options, customer retention and economic development, the applicability of non-bypassable charges to direct access and departing load customers, and the cost-effectiveness of PG\&E's demand response programs.
Q 4 What is the purpose of your testimony?
A 4 I am sponsoring the following testimony and workpapers in PG\&E's
Long-Term Residential Electric Rate Design Reform Proposal-Prepared Testimony:

- Chapter 1, "Long-Term Rate Design Reform Policy."
- Chapter 2, "Long-Term Residential Rate Design":
- Section A, "Introduction."
- Section B, "Monthly Service Fees."
- Section C, "Changes to Tiered Rate Structures."
- Section D, "Standard Non-CARE Rates."
- Section H, "Impacts of Proposals on Conservation."
- Section I, "Rate Changes Between Cases."

Q 5 Does this conclude your statement of qualifications?
A 5 Yes, it does.

## PACIFIC GAS AND ELECTRIC COMPANY STATEMENT OF QUALIFICATIONS OF PHILIP J. QUADRINI

Q 1 Please state your name and business address.
A 1 My name is Philip J. Quadrini, and my business address is Pacific Gas and Electric Company, 77 Beale Street, San Francisco, California.
Q 2 Briefly describe your responsibilities at Pacific Gas and Electric Company (PG\&E).
A 21 am a senior regulatory analyst in the Electric Rates section of the Rates Department.
Q 3 Please summarize your educational and professional background.
A 31 graduated with a bachelor of arts degree in economics in 1976 from the University of Notre Dame, in Indiana. After earning a master of business administration degree from the University of California, Berkeley, in 1980, I joined the PG\&E's Energy Conservation \& Services Department, and served as an analyst and project manager in various conservation programs. I joined PG\&E's Rates Department in 1988 as a project manager for both the Commercial Time-of-Use program and Small Commercial Industrial Project. From 1990-1993, I worked as the rates analyst for the Small Light \& Power class and was the Small Light \& Power and Economic Development rate design witness in PG\&E's 1993 General Rate Case (GRC) Phase II proceeding. In 1994, I became the rates analyst for the Residential class, and was promoted to senior rates analyst in 1995. I served as the rate design and revenue allocation witness for PG\&E's 1994 Low Emission Vehicle proceeding; the residential rate design witness in PG\&E's 1996, 2003, 2007 and 2011 GRC Phase II proceedings; the rate design witness in the 1998 Revenue Adjustment proceeding; the rate design/revenue allocation witness in the 2007 Nuclear Decommissioning proceeding; the residential rate design witness in PG\&E's 2012 Rate Design Window proceeding; the Small Light \& Power witness in PG\&E's 2007, 2011 and 2014 GRC Phase II proceedings; and a residential rate design witness in the Summer 2014 Electric Rate Reform proceeding.

11 A 5 Yes, it does.

## PACIFIC GAS AND ELECTRIC COMPANY STATEMENT OF QUALIFICATIONS OF KAREN J. ZELMAR

Q 1 Please state your name and business address.
A 1 My name is Karen J. Zelmar, and my business address is Pacific Gas and Electric Company, 245 Market Street, San Francisco, California.
Q 2 Briefly describe your responsibilities at Pacific Gas and Electric Company (PG\&E).

A 2 As Director of Energy Efficiency Programs, I am responsible for delivering against energy savings goals for all of our Residential, Commercial, Industrial, Agricultural, Third Party and Government Partnership programs through effective program delivery, channel engagement and strategies for customer segmentation.

Q 3 Please summarize your educational and professional background.
A 3 I received a bachelor of arts degree in economics from Northwestern University in 1993. Upon graduation, I worked as a systems integration analyst and manager for Price Waterhouse Consulting (now owned by IBM.) From 1997-1999, I attended University of California at Berkeley, and graduated from the Haas School of Business with a master's degree in business administration in spring 1999. I joined Netscape Communications as a product manager in Online Shopping Services. America Online (AOL) acquired Netscape Communications in 1999, and I worked for AOL first in San Francisco, California, in the online media division, then as a director of product management for AOL Europe in London, United Kingdom and finally in Dulles, Virginia, as Vice President of Operations and Program Management. In 2007, I joined NAVTEQ as Vice President, Map Network, managing the strategic direction, planning and business operations for online acquisition. In 2008, I joined SunPower Corporation as an independent consultant in marketing, focusing on their commercial business lead generation.

In 2010, I joined PG\&E in the Customer Care Division. The Customer Energy Solutions group is responsible for designing, implementing and administering customer demand side management programs, including energy efficiency, distributed generation, demand response, and rate
programs that help PG\&E customers in northern and central California manage the energy use of their homes and businesses, which also results in positive environmental impacts and cost savings. My first role was in Product Lifecycle Development, and I was subsequently promoted to director, Pricing Products, in October 2010. As Director of Pricing Products, I was responsible for defining and implementing how customers experience our pricing programs (such as Dynamic Pricing, CARE and also our standard rate plan offerings) as well as other Advanced Metering Infrastructure-enabled pricing services. In February 2014, I took the position of Director of Energy Efficiency Programs.
Q 4 What is the purpose of your testimony?
A 4 I am sponsoring the following testimony in PG\&E's Long-Term Residential
Electric Rate Design Reform Proposal-Prepared Testimony:
• $\quad$ Chapter 2, "Long-Term Residential Rate Design":
$-\quad$ Section G, "Non-Tiered TOU Rate Design" (Part 3, "Building TOU
Participation Through Customer Choice," Part 4, "An Initial
Evaluation of Large-Scale Residential TOU Programs Indicates That
a Pilot Program for PG\&E's Customers is Warranted" and Part 5,
"TOU Pilot Proposal").

- $\quad$ Section J, "Customer Education and Outreach."
Q 5 Does this conclude your statement of qualifications?
A 5 Yes, it does.


[^0]:    1 See Administrative Law Judge Ruling Requesting Residential Rate Design Proposals, March 19, 2013, Appendix A.
    2 See Bonbright, Danielson, and Kanerschen, Principles of Public Utility Rates, specifically, Chapter 5, entitled "Cost of Service as a Basic Standard of Reasonableness."

[^1]:    3 Decision Adopting Dynamic Pricing Timetable and Rate Design Guidance for Pacific Gas and Electric Company. The Commission has previously adopted rate design guidance requiring utilities to develop default rates based on dynamic and Time-Variant Pricing (TVP). (See, e.g., D.08-07-045.) In D.08-07-0453, the Commission ordered PG\&E to file an application proposing a default residential rate based on TVP after $A B 1 X$ restrictions were lifted. (D.08-07-045 (OP 8.)) D.08-07-045 found that, for its purposes, Critical Peak Pricing (CPP) combined with TOU was the optimal TVP or dynamic pricing mechanism for residential rates.

[^2]:    4 Attachment A, Principle 6 of the Administrative Law Judge (ALJ) Ruling dated March 19, 2013, in this proceeding states: "Rates should be stable and understandable and provide customer choice."

[^3]:    9 Arizona Public Service: Meissner, Chuck, Arizona Public Service. "Residential Time-of-Use Pricing," presentation from APSC Webinar, January 2014. Enel: Maggiore, Simone, Ricera Sistema Energenico. "Impact of a mandatory time-of-use tariff on residential customers in Italy," presentation from Espoo, November 2012; Enel: The Regulatory Authority for Electricity and Gas (Italy). "2013 Annual Report," July 31, 2013
    http://www.ceer.eu/porta//page/porta//EER HOME/EER PUBLICATIONS/NATIONAL REPORTS/National\%20Reporting\%202013/NR En/C13 NR Italy-EN.pdf; Hydro One: Navigant Consulting. "Time of Use Rates in Ontario, Prepared for the Ontario Energy Board," December 20, 2013 http://www.ontarioenergyboard.ca/OEB/ Documents/EB-2004-0205/Navigant report TOU Rates in Ontario Part 1 201312.pdf; Oklahoma Gas and Electric Company (OGE): Enernoc. "OG\&E SmartHours Residential Pricing Results," presentation from AEIC Load Research Conference, July 9, 2013: Puget Sound Energy (PSE), DuBois, Dennis. "Time-of-Use Electricity Billing: How Puget Sound Energy Reduced Peak Power Demands (Case Study)," Energy Priorities, February 14, 2006
    http://www.energypriorities.com/entries/2006/02/pse tou amr case.pho; Salt River
    Project (SRP): Schwartz, Judith. "The Persistence of Consumer Choice: SRP," Case Study for the Association of Demand Response and Smart Grid, June 2012 http://www.demandresponsesmartgrid.org/Resources/Documents/Case\%20Studies/SR P CaseStudy FINAL 061812.pdf.

[^4]:    17 There is also another category of costs-the cost of programs like those that provide incentives for energy efficiency-which do not vary with customers' usage, yet are collected through volumetric charges that force higher users to bear a greater proportion of the program costs.

[^5]:    19 These problems with the minimum bill amount do not go away if it is set at a higher level (e.g., at $\$ 10$ per month). It still will only apply to a fraction of customers and it still will unfairly charge the same bill to customers with different amounts of low usage.

[^6]:    28 Under the alternative assumption that customers respond to marginal rates, PG\&E has conducted an evaluation of the entirety of its rate proposal-including reducing the number of tiers and narrowing tier differentials, and raising CARE rate levels to reduce the CARE discount percentage, in addition to implementing a monthly service fee. These results, which do not try to isolate the effect of the monthly service fee, are presented in Chapter 2, Section H.

[^7]:    29 These figures pertain to the rates based upon the 2.1 percent revenue growth scenario. PG\&E reserves the right to make additional proposals for post-2018 adjustments to ensure PG\&E's effective CARE discount remains within the 30 percent to 35 percent range required under $A B 327$.
    30 The Overall Energy Burden methodology totals all customer bills and divides that number by total customer income.
    31 Needs Assessment for the Energy Savings Assistance and the California Alternate Rates for Energy Programs, Volume 2: Detailed Findings, Final Report, p. 5-93. Evergreen Economics, December 16, 2013.
    32 Final Report on Phase 2 Low Income Needs Assessment, p. 5-9. KEMA Inc., September 7, 2007.

[^8]:    33 LIHEAP Home Energy Notebook for FY 2007: Executive Summary, p. i. U.S. Department of Health and Human Services, June 2009.

    34 Customers were asked to state their total household income, but were not asked specifically asked about income or assistance from other programs.

[^9]:    35 "California Minimum Wage Increase Signed into Law, Set to Be Nation's Highest," Huffingtonpost.com, September 25, 2013.

