

## Tracking “Baseline” using the PGE Spreadsheet

Each home is allotted a certain number of kilowatt hours (KWHs) each day. Go over that allotment, and you are charged a surcharge. In fact there are actually five different prices per KWH depending on how much electricity that you use. These prices are called “Tiers”.

- **Baseline tier:** is charged at the regular PG&E rate
- **Tier1** is the next higher rate charged for energy used that is between 101% and 130% of your baseline allotment.
- **Tier2** is the next higher rate charged for energy used that is between 131% and 200% of your baseline allotment.
- **Tier3** is the next higher rate charged for energy used that is between 201% and 300% of your baseline allotment.
- **Tier4** is the next higher rate charged for energy used that over 300% of your baseline allotment.

Your PG&E bill shows how many KWHs are charged in each tier and the price at which they are charged. However the bill is formatted such that you can not easily tell if the bill is accurate. For example, some bills contain more than one billing period on the same bill. The number of days for which each bill covers varies from month to month. These deliberate complications make it difficult to track baseline allotment.

Why would you want to track baseline allotment? Simple. If PG&E lowers the allotment, more KWHs will move into the higher priced tiers and you will pay more for the same amount of electricity even though the stated prices remain the same. PG&E cannot change their prices without permission of the Public Utilities Commission, but a lowering of the baseline allotment has the same effect as a price increase.

According to PG&E there are two baseline allotments, one for the Winter and one for the Summer. How the baseline is determined for any home is beyond the scope of this discussion. What is important is that you track your baseline and make sure it is what it is supposed to be for your home.

First lets take a look at a couple of bills. One shows a bill with a single billing period, and the other shows a bill with more than one billing period.

**Charges**

**07/27/2011 - 08/24/2011** Billing period

Electric Charges					\$272.69
Baseline Quantity		443.70000 Kwh			
Baseline Usage		443.70000 Kwh @	\$0.12233		
101-130% of Baseline	Tier 1	133.11000 Kwh @	\$0.13907		
131-200% of Baseline	Tier 2	310.59000 Kwh @	\$0.30180		
201-300% of Baseline	Tier 3	310.60000 Kwh @	\$0.34180		
Net Charges		(there are no Tier 4 charges on this bill)			\$272.69

The net charges shown above include the following component(s).  
Please see definitions on Page 2 of the bill.

Generation	\$105.17
Transmission	19.46
Distribution	106.68
Public Purpose Programs	18.33
Nuclear Decommissioning	0.79
DWR Bond Charge	6.05
Ongoing CTC	10.56
Energy Cost Recovery Amount	5.65

**Taxes and Other**

Energy Commission Tax	\$0.35
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**TOTAL CHARGES** **\$273.04**

This bill above contains a single billing period. To find the daily allotment of KWHs divide the Baseline Quantity by the number of days from 07/27/2011 to 08/24/2011. To find the average KWHs used daily, add Baseline Usage KWHs and any Tier 1,2,3 and 4 KWHs and divide that total by the number of days in the billing period. Note: your Baseline Usage and the Baseline Quantity will always be the same except if you use an exceptionally low amount of energy.

Using the spread sheet makes these calculations easy. You simply enter the values from the bill into the appropriate areas and let the computer do the math. There is no need to worry about how many days there are in a particular month or adding the different tiers or the divisions. Another benefit of the spreadsheet is that you keep a running month to month record of the baseline that PG&E used to calculate your bill. If that number changes it is time to investigate.

Next another billing example, this time where there are two billing periods. Each billing period will be entered on a separate line of the spreadsheet.

Charges

05/26/2011 - 06/19/2011 Billing Period 1

Electric Charges		\$163.95
Baseline Quantity	412.50000 Kwh	
Baseline Usage	412.50000 Kwh @ \$0.12233	
101-130% of Baseline	123.75000 Kwh @ \$0.13907	
131-200% of Baseline	288.75000 Kwh @ \$0.29385	
201-300% of Baseline	28.33333 Kwh @ \$0.40352	
Net Charges		\$163.95

The net charges shown above include the following component(s).  
Please see definitions on Page 2 of the bill.

Generation	\$59.82
Transmission	13.86
Distribution	60.81
Public Purpose Programs	13.05
Nuclear Decommissioning	0.56
DWR Bond Charge	4.31
Ongoing CTC	7.51
Energy Cost Recovery Amount	4.03

Taxes and Other

Energy Commission Tax	\$0.25
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Charges

06/20/2011 - 06/24/2011 Billing Period 2

Electric Charges		\$34.74
Baseline Quantity	76.50000 Kwh	
Baseline Usage	76.50000 Kwh @ \$0.12233	
101-130% of Baseline	22.95000 Kwh @ \$0.13907	
131-200% of Baseline	53.55000 Kwh @ \$0.30180	
201-300% of Baseline	17.66667 Kwh @ \$0.34180	
Net Charges		\$34.74

The net charges shown above include the following component(s).  
Please see definitions on Page 2 of the bill.

Generation	\$12.95
Transmission	2.76
Distribution	13.14
Public Purpose Programs	2.61
Nuclear Decommissioning	0.11
DWR Bond Charge	0.87
Ongoing CTC	1.50
Energy Cost Recovery Amount	0.80

Taxes and Other

Energy Commission Tax	\$0.05
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TOTAL CHARGES

\$198.99

For whatever reason, PG&E has broken this bill into two billing periods. You will note as shown in the entry example for the spreadsheet, the baseline remains the same for both periods. Why the 5 days in billing period 2 is separate is something for PG&E to explain. The important thing is that each billing period should be entered separately in the spreadsheet and evaluated independently.

## ***How to use the Spreadsheet***

The spreadsheet is divided into 12 columns, A-L. Your data is entered into the first 7, A-G. The remaining columns H-L are where the various calculations are displayed. Line 1 of the spreadsheet is the headings for the columns. Your data entry starts on line 2. The columns are as follows with data taken from the PG&E bill:

- A: Billing Period Start Date
- B: Billing Period End date
- C: Baseline Usage in KWH
- D: Tier 1 Usage in KWH
- E: Tier 2 Usage in KWH
- F: Tier 3 Usage in KWH
- G: Tier 4 Usage in KWH

Leave blank, any Tiers not shown for a billing period.

Calculated Results appear in the following columns.

- H: Your total usage in KWHs
- I: Number of days in the billing period
- J: Daily Baseline Allotment
- K: Daily average usage
- L: Percent of your usage charged at the baseline rate

Once you have entered the data into a line or lines on the spreadsheet and reviewed the results, save the spreadsheet for use when next month's bill arrives. After a few months you will note the trends.

The sample bills were from a home where the Winter daily baseline allotment for the past 3 years has been 12.7 KWHs per day and the Summer baseline allotment has been 16.5 KWHs per day. In June of 2011, the Summer baseline allotment dropped to 15.3 KWHs per day. This drop caused an increase paid to PG&E for the same amount of energy used. PG&E had no answer when questioned about the lower allotment but an investigation began and the results are pending at the time of this writing. According to PG&E there has been no permission granted by the PUC to change either the rates or the allotments. They suggest that maybe it is a computer error. It is for this reason that you should be tracking your own usage and allotments. If you have saved your bills, take the time to enter them all into the spreadsheet to see if there are any random changes in your daily allotment. The picture on the following page shows the data entered from the two sample bills.

	A	B	C	D	E	F	G	H	I	J	K	L
	Start Date	End Date	Baseline (kwh)	T1 101-130%	T2 131-200%	T3 201-300%	T4 > 300%	Usage	Billed Days	Daily Baseline	Daily Usage	%
1	5/26/2011	06/19/2011	412.50000	123.75000	288.75000	28.33333	853.33333	25	16.5	34.1	48.34	
2	6/20/2011	06/24/2011	76.50000	22.95000	53.55000	17.66667	170.66667	5	15.3	34.1	44.82	

**A bill with two billing periods is entered using two lines of the spreadsheet.**

**Billing Period 1**

**A bill with one billing period requires only one**

**Charges**  
 06/26/2011 - 06/19/2011

The net charges shown above include the following component(s). Please see definitions on Page 2 of the bill.

- Electric Charges
- Baseline Quantity
- Baseline Usage
- 101-130% of Baseline
- 131-200% of Baseline
- 201-300% of Baseline
- Net Charges

Taxes and Other  
 Energy Commission Tax

**TOTAL CHARGES**

**Charges**  
 07/27/2011 - 08/24/2011

The net charges shown above include the following component(s). Please see definitions on Page 2 of the bill.

- Electric Charges
- Baseline Quantity
- Baseline Usage
- 101-130% of Baseline
- 131-200% of Baseline
- 201-300% of Baseline
- Net Charges

Taxes and Other  
 Energy Commission Tax

**TOTAL CHARGES**

	A	B	C	D	E	F	G	H	I	J	K	L
	Start Date	End Date	Baseline (kwh)	T1 101-130%	T2 131-200%	T3 201-300%	T4 > 300%	Usage	Billed Days	Daily Baseline	Daily Usage	%
4	7/27/2011	08/24/2011	443.70000	133.11000	310.59000	310.60000	11.98	29	15.3	41.3	37.04	
5							0	0	0.0	0.0	0.00	
6							0	0	0.0	0.0	0.00	
7							0	0	0.0	0.0	0.00	
8							0	0	0.0	0.0	0.00	
9							0	0	0.0	0.0	0.00	

Finally here are actual calculated results from the past 3 years. The input data has been removed leaving only billing dates and results. Note the **Summer** and **Winter** allotments remain the same except for the **last three entries**.

	A	B	H	I	J	K	L
1	Start Date	End Date	Usage	Billed Days	Daily Baseline	Daily Usage	%
2	10/23/2008	10/31/2008	220.03448	9	16.5	24.4	67.49
3	11/01/2008	11/20/2008	488.96	20	12.7	24.4	51.95
4	11/21/2008	12/23/2008	893.9	33	12.7	27.1	46.87
5	12/24/2008	12/31/2008	209.80645	8	12.7	26.2	48.43
6	01/01/2009	01/23/2009	603.19355	23	12.7	26.2	48.43
7	01/24/2009	02/24/2009	796	32	12.7	24.9	51.06
8	02/25/2009	02/28/2009	96.55172	4	12.7	24.1	52.61
9	03/01/2009	03/25/2009	603.44828	25	12.7	24.1	52.61
10	03/26/2009	04/24/2009	830	30	12.7	27.7	45.90
11	04/25/2009	04/30/2009	192.18182	6	12.7	32.0	39.65
12	05/01/2009	05/27/2009	864.81818	27	16.5	32.0	51.51
13	05/28/2009	06/24/2009	850	28	16.5	30.4	54.35
14	06/25/2009	07/24/2009	1399	30	16.5	46.6	35.38
15	07/25/2009	08/24/2009	1261.45	31	16.5	40.7	40.55
16	08/25/2009	09/23/2009	1306	30	16.5	43.5	37.90
17	09/24/2009	09/30/2009	189.96552	7	16.5	27.1	60.80
18	10/01/2009	10/22/2009	597.03448	22	16.5	27.1	60.80
19	10/23/2009	10/31/2009	217.8	9	16.5	24.2	68.18
20	11/01/2009	11/21/2009	508.2	21	12.7	24.2	52.48
21	11/22/2009	12/23/2009	864	32	12.7	27.0	47.04
22	12/24/2009	12/31/2009	216	8	12.7	27.0	47.04
23	01/01/2010	01/25/2010	675	25	12.7	27.0	47.04
24	01/26/2010	02/24/2010	749	30	12.7	25.0	50.87
25	02/25/2010	02/28/2010	94.4	4	12.7	23.6	53.81
26	03/01/2010	03/26/2010	613.6	26	12.7	23.6	53.81
27	03/27/2010	04/26/2010	747	31	12.7	24.1	52.70
28	04/27/2010	04/30/2010	95.03448	4	12.7	23.8	53.45
29	05/01/2010	05/25/2010	593.96552	25	16.5	23.8	69.45
30	05/26/2010	05/31/2010	211.2	6	16.5	35.2	46.88
31	06/01/2010	06/24/2010	844.8	24	16.5	35.2	46.88
32	06/25/2010	06/30/2010	256.5	6	16.5	42.8	38.60
33	07/01/2010	07/26/2010	1111.5	26	16.5	42.8	38.60
34	07/27/2010	07/31/2010	189.33333	5	16.5	37.9	43.57
35	08/01/2010	08/25/2010	946.66667	25	16.5	37.9	43.57
36	08/26/2010	09/24/2010	996	30	16.5	33.2	49.70
37	09/25/2010	10/25/2010	1026	31	16.5	33.1	49.85
38	10/26/2010	10/31/2010	156.2069	6	16.5	26.0	63.38
39	11/01/2010	11/23/2010	598.7931	23	12.7	26.0	48.78
40	11/24/2010	12/24/2010	864	31	12.7	27.9	45.57
41	12/25/2010	12/31/2010	192.28125	7	12.7	27.5	46.23
42	01/01/2011	01/25/2011	686.71875	25	12.7	27.5	46.23
43	01/26/2011	02/24/2011	780	30	12.7	26.0	48.85
44	02/25/2011	02/28/2011	105.65517	4	12.7	26.4	48.08
45	03/01/2011	03/25/2011	660.34483	25	12.7	26.4	48.08
46	03/26/2011	04/26/2011	792	32	12.7	24.8	51.31
47	04/27/2011	04/30/2011	101.24138	4	12.7	25.3	50.18
48	05/01/2011	05/25/2011	632.75862	25	16.5	25.3	65.19
49	05/26/2011	06/19/2011	853.33333	25	16.5	34.1	48.34
50	06/20/2011	06/24/2011	170.6667	5	15.3	34.1	44.82
51	06/25/2011	07/26/2011	1362.05	32	15.3	42.6	35.95
52	07/27/2011	08/24/2011	1198	29	15.3	41.3	37.04
53			0	0	0.0	0.0	0.00
54			0	0	0.0	0.0	0.00