

Solar Net Energy Metering Billing Webinar

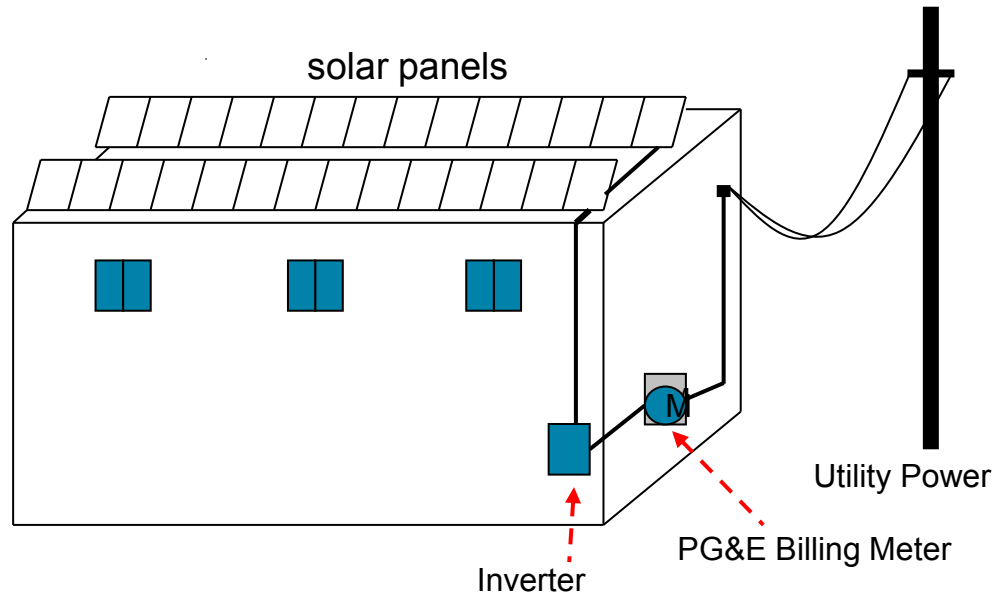




Agenda

- What is Net Energy Metering (NEM)?
- Solar NEM Billing – The Myth and Truth
- The Monthly NEM Bill
- The Annual NEM True-up Bill
- AB 920
- Questions and Answers

What is NEM?



- One customer meter and one solar PV system
- Intended for customer-owned generation to offset part, or all, of a customer's electrical usage requirements
- Yearly billing true-up
 - Customer generates more kWh at a given point in time, this excess kWh is exported back to the utility grid
 - Excess is credited at their full retail rate schedule, and used to offset charges incurred for consumption at a different time and price
 - May not need to perfectly size the PV system to the entire usage to ZERO out the bill



Solar NEM Billing – The Myth and Truth

Myth

“After installing a solar PV system, I was told that I will no longer receive a PG&E electric bill.”

Truth

Per tariff, PG&E must charge, at the very least, a monthly minimum amount to recover costs from the transmission and distribution of electricity. While electricity charges due to usage may decrease, or even reduced to \$0.00 due to solar generation, PG&E still issues a bill to collect the monthly minimum.



Regular Monthly Bill – Ex. 1

Account Number	Service To	Amount Due	Amount Enclosed						
1234567890-1	4/15/2011	\$25.00							
NEM CUSTOMER 123 SOLAR HIGHWAY SUN CITY, CA 99999-9999		PG&E Box 997300 Sacramento, CA 95899-7300							
Telephone Assistance 1-800-PGE-COMP		ACCOUNT SUMMARY							
Local Office 77 BEALE ST SAN FRANCISCO, CA		Service Electric	<table border="0"> <thead> <tr> <th colspan="2"><u>Service Dates</u></th> <th><u>Amount</u></th> </tr> </thead> <tbody> <tr> <td>3/15/2011 TO</td> <td>4/15/2011</td> <td>\$ 25.00</td> </tr> </tbody> </table>	<u>Service Dates</u>		<u>Amount</u>	3/15/2011 TO	4/15/2011	\$ 25.00
<u>Service Dates</u>		<u>Amount</u>							
3/15/2011 TO	4/15/2011	\$ 25.00							
		TOTAL CURRENT CHARGES	\$ 25.00						

In this example, let's assume the following:

- The customer used 25 kWh, at a rate of \$1 per kWh
- The minimum charge rate is \$5 per month

PG&E will not issue a bill with both minimum and electricity charges. The bill will consist only of the higher charge between minimum and electricity.

In this example, the total bill amount is \$25.



Regular Monthly Bill – Ex. 2

Account Number	Service To	Amount Due	Amount Enclosed								
1234567890-1	4/15/2011	\$5.00									
NEM CUSTOMER 123 SOLAR HIGHWAY SUN CITY, CA 99999-9999		PG&E Box 997300 Sacramento, CA 95899-7300									
Telephone Assistance 1-800-PGE-COMP		ACCOUNT SUMMARY									
Local Office 77 BEALE ST SAN FRANCISCO, CA		<table> <thead> <tr> <th>Service</th> <th>Service Dates</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Electric</td> <td>3/15/2011 TO 4/15/2011</td> <td>\$ 5.00</td> </tr> <tr> <td colspan="2">TOTAL CURRENT CHARGES</td> <td>\$ 5.00</td> </tr> </tbody> </table>	Service	Service Dates	Amount	Electric	3/15/2011 TO 4/15/2011	\$ 5.00	TOTAL CURRENT CHARGES		\$ 5.00
Service	Service Dates	Amount									
Electric	3/15/2011 TO 4/15/2011	\$ 5.00									
TOTAL CURRENT CHARGES		\$ 5.00									

In this example, let's assume the following:

- The customer used 0 kWh, at a rate of \$1 per kWh
- The minimum charge rate is \$5 per month

PG&E will not issue a bill with both minimum and electricity charges. The bill will consist only of the higher charge between minimum and electricity.

In this example, the total bill amount is \$5.



NEM Billing at a Glance

- NEM customers are not billed for electricity charges until their respective annual true-ups
 - Subject to monthly minimum charges
 - Accumulates monthly balance of credits and charges until annual true-up
- Meter is read monthly and an amount is calculated based on the net energy recorded (kWh)
 - Net exports and usage are credited/charged at the customer's applicable electric rate schedule
 - Time of Use (TOU) rates allow a customer to receive higher priced credits during the day to offset lower usage charges at night
- Any remaining credits at annual true-up will reset to zero and start a new annual cycle



NEM Billing Calculation

Monthly Electricity Charge on NEM

- Minimum electricity charge, which is approximately \$5.00 for E1/E6/E7

Annual Electric True-up on NEM

- If Total Electricity charge $>$ Total Minimum charge
 - The customer owes all electricity charges less previously-billed minimum charges
- If Total Electricity charge $<$ Total Minimum charge
 - The customer owes only the current month minimum charge



NEM Monthly Bill – Ex. 1

Account Number	Service To	Amount Due	Amount Enclosed
1234567890-1	4/15/2011	\$5.00	

NEM CUSTOMER
 123 SOLAR HIGHWAY
 SUN CITY, CA 99999-9999

PG&E
 Box 997300
 Sacramento, CA
 95899-7300

Telephone Assistance

ACCOUNT SUMMARY

1-800-PGE-COMP

Service	Service Dates	Amount
Electric	3/15/2011 TO 4/15/2011	\$ 5.00

Local Office

77 BEALE ST
 SAN FRANCISCO, CA

TOTAL CURRENT CHARGES \$ 5.00

TOTAL CURRENT MONTH'S BILLED AMOUNT: **\$5.00***

*This amount is the minimum you must pay this month and is reflected on your regular monthly blue bill, in addition to the energy charges that you may pay monthly or at the end of the true-up period shown below. It includes the following components: Distribution \$x.xx, Public Purpose Programs \$x.xx, Nuclear Decommissioning \$x.xx and Generation \$x.xx.

ENERGY CHARGES/CREDITS

Current Month Energy Charge or Credit (-) **\$25.00**

Cumulative Energy Charges or Credits (-) for the current true-up period: **\$25.00**

This Cumulative Energy Charge does not reflect any payment you may have made.

You have the option to pay your energy charges either monthly or at the end of your true-up period.

ANY UNPAID ENERGY CHARGES WILL BE DUE AT THE END OF YOUR TRUE-UP PERIOD

In this NEM example, let's assume the following:

- Used 25 kWh, at a rate of \$1 per kWh
- The minimum charge rate is \$5 per month

Result:

- The monthly bill will consist of the \$5 minimum charge
- The \$25 electricity charge will be held in suspense until the annual true-up evaluation of Total Electricity vs. Total Minimum charges



NEM Annual True-up Bill – Ex. 1

Account Number	Service To	Amount Due	Amount Enclosed
1234567890-1	6/15/2011	\$5.00	

NEM CUSTOMER
123 SOLAR HIGHWAY
SUN CITY, CA 99999-9999

PG&E
Box 997300
Sacramento, CA
95899-7300

Telephone Assistance

1-800-PGE-COMP

ACCOUNT SUMMARY

Service	Service Dates	Amount
Electric	5/15/2011 TO 6/15/2011	\$ 5.00

Local Office

77 BEALE ST
SAN FRANCISCO, CA

TOTAL CURRENT CHARGES \$ **5.00**

TOTAL TRUE-UP BILLED AMOUNT: **\$5.00***

ENERGY CHARGES/CREDITS

Current Month Energy Charge or Credit (-) **(\$100.00)**

Cumulative Energy Charges or Credits (-) for the current true-up period: **(\$50.00)**

This Cumulative Energy Charge does not reflect any payment you may have made.

You have the option to pay your energy charges either monthly or at the end of your true-up period.

ANY UNPAID ENERGY CHARGES WILL BE DUE AT THE END OF YOUR
TRUE-UP PERIOD

In this NEM example, let's assume the following:

- Used 25 kWh, at a rate of \$1 per kWh, in Month 1
- Used 25 kWh, at a rate of \$1 per kWh, in Month 2
- Generated 100 kWh, at a rate of \$1 per kWh, in Month 3 (true-up)
- The minimum charge rate is \$5 per month

Result:

- Total Electricity charge for Month 1-3 is -\$50
- Total Minimum charge for Month 1-3 is \$15
- Total owed at true-up is \$15



Net Surplus Compensation (AB920)¹¹

- Authorizes payments to be made to NEM customers who produce more electricity than they use over a true-up period
 - Electricity in kilowatt-hours (kWh) exported to PG&E by your renewable generator is greater than the electricity you used onsite
- The compensation offered to customers is a rate based on a rolling 12-month average of spot market prices and may fluctuate on a monthly basis (~\$0.035/kWh today)
 - This rate is different than the credits accumulated from NEM, as the credits under NEM are based on the full retail rate
- If you qualify for a Net Surplus Compensation payment, it will be added to your PG&E bill as an electric credit on true-up
 - If a negative balance exists on your PG&E bill during your true-up month when this credit is applied, you may request a check



Surplus Generation with NEM True-up Credits

TOTAL TRUE-UP BILLED AMOUNT:

-\$6.38*

*This amount includes True-up Energy charges and current month's billed amount and is reflected on your regular monthly blue bills. It includes the following components: Distribution \$3.61, Public Purpose Programs \$0.18, Nuclear Decommissioning \$0.01 and Generation \$-10.18.

If the electric total charge on the blue bill for this month is very large, it is because you have been paying your energy charges on an annual basis. You have an option of paying your energy charges monthly in the coming year. Under the Net Energy Meter program you may pay all or part of your energy charges on a monthly basis rather than waiting until true-up bill. If you did receive a large true-up bill and would like to discuss your payment options, please call PG&E at (877) 743-4112. Thank you for doing business with PG&E.

Net Surplus Compensation: \$10.82
 Net Trueup Export (kWh): 299

To be eligible for a Net Surplus Compensation, your net trueup usage must be negative. If you do not meet these requirements, your credit eligibility will be reviewed at the end of your next annual trueup period.

ENERGY TRUE-UP HISTORY:

BILLING MONTH	BILL TO DATE	ENERGY (kWh)	ENERGY CHARGES/ CREDITS
May 2011	05/20/11	-503	\$-62.47
Apr 2011	04/20/11	-190	\$-23.30
Mar 2011	03/21/11	210	\$25.75
Feb 2011	02/17/11	-303	\$-37.16
Jan 2011	01/19/11	300	\$36.38
Dec 2010	12/20/10	495	\$60.24
Nov 2010	11/18/10	247	\$29.39
Oct 2010	10/19/10	-89	\$-10.59
Sep 2010	09/20/10	-231	\$-27.49
Aug 2010	08/20/10	-131	\$-15.59
Jul 2010	07/20/10	167	\$19.87
Jun 2010	06/19/10	-271	\$-32.25
TOTALS		-299	\$-37.22

(E180) NET SURPLUS COMPENSATION CREDIT ELIGIBILITY:

NET TRUEUP USAGE	APPLICABLE NSC USAGE	TRUEUP TYPE	APPLY NSC CREDIT?
-299	-299	ENET	Yes

(E180) NET SURPLUS COMPENSATION CREDIT:

RATE SCHEDULE	SEASON	RATE EFF DATE	OAS RATE DATE	RATE DAYS	USAGE	NSC RATE	CALC CREDIT	BILLED AMOUNT	COMP TYPE	REV CODE	MJR COMP
E IPB	Winter	05/01/11	03/01/11	10	-100.000	0.03619	\$-3.62	\$-3.62	GEN	1	1
E IPB	Summer	05/01/11	03/01/11	20	-199.000	0.03619	\$-7.20	\$-7.20	GEN	1	1
TOTAL								\$-10.82			

Account Number	Service To	Amount Due	Amount Enclosed
1234567890-1	5/20/2011	NO PAYMENT DUE	
NEM CUSTOMER		PG&E	
123 SOLAR HIGHWAY		Box 997300	
SUNCITY, CA 99999-9999		Sacramento, CA	
		95899-7300	
Telephone Assistance		ACCOUNT SUMMARY	
1-800-PGE-COMP			
Assistance available by		Service	Service Dates
Telephone 24 hours per day,		Electric	4/20/2011 TO 5/20/2011
7 days per week.		Gas	4/20/2011 TO 5/20/2011
			Amount
			\$ -6.38
			\$ 1.00
Local Office		Energy Commission Tax	\$ 0.19
77 Beale St, B12C		City Tax	\$ 0.19
San Francisco, CA 94105		TOTAL CURRENT CHARGES	\$ -5.00
TOTAL AMOUNT NOW DUE			\$ -5.00



Surplus Generation with NEM True-up Charges

TOTAL TRUE-UP BILLED AMOUNT:

\$131.64*

*This amount includes True-up Energy charges and current month's billed amount and is reflected on your regular monthly blue bills. It includes the following components: Transmission \$-0.86, Distribution \$50.20, Public Purpose Programs \$-1.51, Nuclear Decommissioning \$-0.06, DWR Bond Charge \$-0.30, On-Going CTC \$-0.46, Energy Cost Recovery Amount \$-0.25 and Generation \$84.88.

If the electric total charge on the blue bill for this month is very large, it is because you have been paying your energy charges on an annual basis. You have an option of paying your energy charges monthly in the coming year. Under the Net Energy Meter program you may pay all or part of your energy charges on a monthly basis rather than waiting until true-up bill. If you did receive a large true-up bill and would like to discuss your payment options, please call PG&E at (877) 743-4112. Thank you for doing business with PG&E.

Net Surplus Compensation: **\$1.95**
Net Trueup Export (kWh): 54

To be eligible for a Net Surplus Compensation, your net trueup usage must be negative. If you do not meet these requirements, your credit eligibility will be reviewed at the end of your next annual trueup period.

ENERGY TRUE-UP HISTORY:

BILLING MONTH	BILL TO DATE	SUMMER ON	SUMMER PART	SUMMER OFF	WINTER PART	WINTER OFF	TOTAL ENERGY	ENERGY CHARGES /CREDITS
NOV 2011	11/06/11	979	-118	-1,840	-1,067	-2,754	-4,800	\$-1,265.88
OCT 2011	10/06/11	479	0	4,075			4,554	\$1,409.23
SEP 2011	09/07/11	-17	-17	110			76	\$3.00
AUG 2011	08/06/11	-63	-19	103			21	\$-10.21
JUL 2011	07/09/11	-7	1	101			95	\$7.49
TOTALS							-54	\$143.63

(E180) NET SURPLUS COMPENSATION CREDIT ELIGIBILITY:

NET TRUEUP USAGE	APPLICABLE NSC USAGE	TRUEUP TYPE	APPLY NSC CREDIT?
-54	-54	ENET	Yes

(E180) NET SURPLUS COMPENSATION CREDIT:

RATE SCHEDULE	SEASON	RATE EFF DATE	OAS RATE DATE	RATE DAYS	USAGE	NSC RATE	CALC CREDIT	BILLED AMOUNT	COMP TYPE	REV CODE	MJR COMP
EG	Summer	08/01/11	06/20/11	25	-44.000	0.03609	\$-1.59	\$-1.59	GEN	1	1
EG	Winter	08/01/11	06/20/11	6	-10.000	0.03609	\$-0.36	\$-0.36	GEN	1	1
TOTAL								\$-1.95			

Account Number	Service To	Amount Due	Amount Enclosed
1234567890-1	11.6/2011	\$185.00	

NEM CUSTOMER
123 SOLAR HIGHWAY
SUNCITY, CA 99999-9999

PG&E
Box 997300
Sacramento, CA
95899-7300

Telephone Assistance

1-800-PGE-COMP
Assistance available by
Telephone 24 hours per day,
7 days per week.

Local Office

77 Beale St, B12C
San Francisco, CA 94105

ACCOUNT SUMMARY

Service	Service Dates	Amount
Electric	10.6/2011 TO 11.6/2011	\$ 131.64
Gas	10.6/2011 TO 11.6/2011	\$ 50.00
Energy Commission Tax		\$ 1.23
City Tax		\$ 2.13
TOTAL CURRENT CHARGES		\$ 185.00
TOTAL AMOUNT NOW DUE		\$ 185.00



Resources

Information on NEM billing can be found:

<http://www.pge.com//mybusiness/energysavingsrebates/solar/afterinstalling/>

Information on Net Surplus Compensation (AB920):

<http://www.pge.com/mybusiness/energysavingsrebates/solar/afterinstalling/ab920/>

Calling the Solar Customer Service Center:

1-877-743-4112



Questions?