

# REFERRALS



As a Pell Solar customer you have a great opportunity to earn extra money by referring customers to Pell Solar.

Pell Solar will pay \$100 per kilowatt to anyone for referrals to Pell Solar.

Example:

You refer a customer to Pell Solar. They purchase a 7.2 Kilowatt System, Pell Solar will pay you \$720 for the referral! It's that easy.

Payments are made once the system is installed.

\*Any payments for referrals over \$600 will be given a 1099.



Dear Valued Customer,

On behalf of everyone at Pell Solar, thank you for choosing us in the purchase and installation of your new solar system. From our sales team, engineering, financing, installation crew, and office staff we are all committed to making sure your solar system exceeds all your expectations.

This packet we are providing you is just another way for us to make sure you have all the information you need to turn on, run and monitor your new system. If you're not sure about something or can't find the information you are looking for here, please don't hesitate to contact one of our well qualified team members @ 1-866-646-8499.

We will be happy to help you with any questions you may have.

Again, thank you for choosing Pell Solar. We hope your experience will lead you to refer us to any friends and family who might be interested in saving with solar.

Josh Pellerin, CEO

Pell Solar Inc

# TURNING ON YOUR SYSTEM

## Turning on your MICROINVERTED Solar System

You will receive a call from Pell Solar letting you know that your system is ready to be turned on. You will also receive a **PTO** (Permission To Operate) from your electricity company. You can turn on your system in 3 easy steps.

1

### Breaker Panel

Go to your breaker panel located outside your home. The double breaker switch is either at the top or bottom of your panel and is clearly labeled. Simply move the breaker into the "ON" position.

*(Breakers can be stiff and resistant, this is normal)*

2

### AC Disconnect

Move the handle into the "On" position

3

### Sub Panel

If your solar system has more than 16 panels or more you may have to power up a sub-panel. Open the sub-panel door. Locate the breakers inside. Flip each breaker up into the "On" position.

?

*\*\*If you see a gray box that is screwed shut, "DO NOT OPEN IT". This is NOT a sub-panel.*



## CONGRATULATIONS!

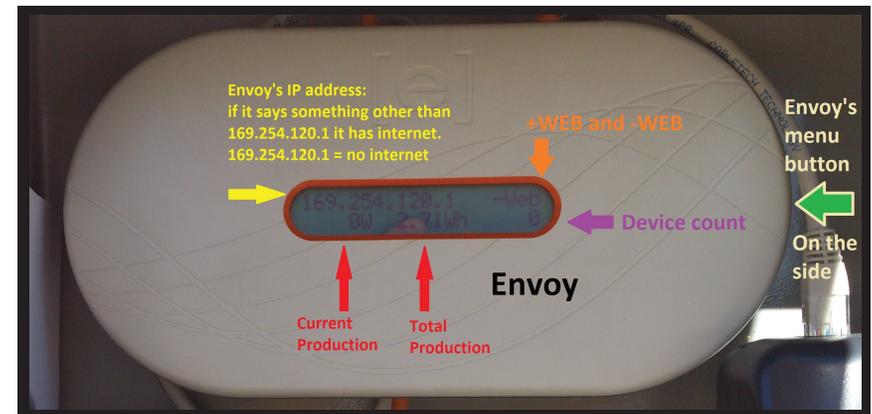
You have now successfully turned on your new solar system. If you have any questions, please contact one of our well qualified team members at 1-866-646-8499.

# TROUBLESHOOTING *Wireless*



\*If you change your internet service or router, please contact us because your envoy needs to be reconfigured to your new equipment.

\*Internet monitoring for the solar system many can be connected via wireless adapters. Before troubleshooting the wireless monitoring connection, verify the solar system is turned on. Please refer to the "TURNING ON YOUR SYSTEM" page. Make sure you follow all the directions to properly turn on your system. After the solar system is fully turned on, power cycle the equipment described below.

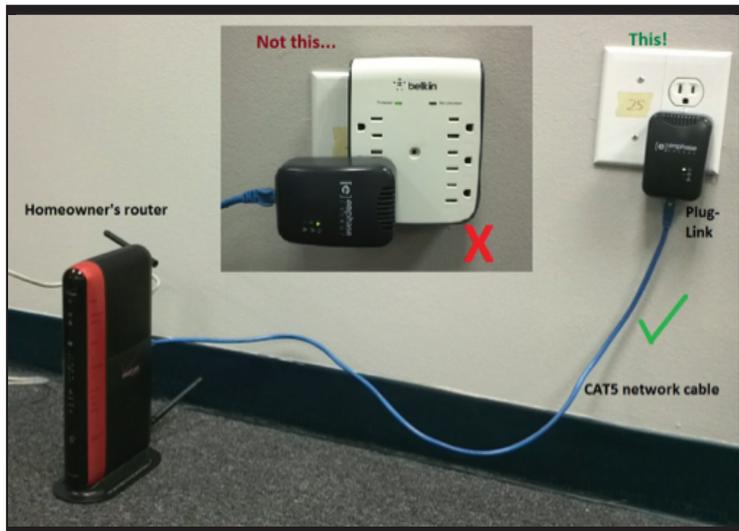


In a wireless system, there are two main components: the home's internet router and the wireless antenna/device connected to the solar system. First, power the router off and wait one minute before turning it back on. Then, turn off the envoy (only for enphase microinverter systems) or the wireless adapter that is attached to the solar system for every other type of inverter and wait a minute before turning back on. Monitoring should be restored within a few minutes to 2 days for monitoring to fully update and show current online status.

# TROUBLESHOOTING

*Wired*

When you are troubleshooting your internet monitoring system, the first step is to make sure your system is ON and operational. Please refer to the “TURNING ON YOUR SYSTEM” page. Make sure you follow all the directions to properly turn on your system. After you have checked the system is fully turned on, check the connections as show below.



It may take a few hours to 2 days for your monitoring to fully update and show current online status. If your router has been changed, replaced or the password has been changed, please call our office at 1-866-646-8499.

## Power Source and Plug-Links:

Power strips and adapters cause communication interference between the plug-links. When plug-links are plugged directly into wall outlets, the interference is minimized. Plug-links must be plugged directly into the wall outlet. GFCI outlets (with the red “TEST” button) as GFIs interfere with the signal as well. Plug-links plugged into any power adapter, power strip or surge protector will not work properly and cause your monitoring system to not report. Only plain regular outlets like what is shown in the picture are necessary. This is the number one reason for loss of solar system monitoring. Please make sure all your connections are secure and pushed in all the way. It may look like everything is correct, but sometimes a connection cable could be loose. Loose connections are another common reason for monitoring trouble. After proper connections restored, it may take a few hours to 2 days for your monitoring to fully update and show current online status.

# MONITORING YOUR SYSTEM

## Login

Email Address: \_\_\_\_\_

Monitoring System Password: \_\_\_\_\_

## Monitoring Your System

Monitoring your system gives you peace of mind that your system is doing all that it should for you. Monitoring is dependent on which inverter technology is utilized in your solar system.

1

### Monitoring Your System

Determine which inverter brand or technology you have: Enphase, SMA, Solaredge, or SunPower.

2

Go to the corresponding login page.

**Enphase:** <https://enlighten.enphaseenergy.com>

**SMA:** <https://www.sunnyportal.com>

**Solaredge:** <https://monitoring.solaredge.com>

**SunPower:** <https://www.sunpowermonitor.com>

And click residential.

3

Login with the email address Pell Solar has on file for your account and the password the inverter monitoring software had emailed to you. If you do not have the password, use the “forgot my password” feature to reset it.

# UNDERSTANDING NEM/TOU

## Understanding Net Energy Metering (NEM) and Time of Use (TOU)

NEM in conjunction with TOU is one of the largest benefits to going solar. Net Metering is a State requirement for all electric utilities, benefitting both the Customer and the Utility. The underlying concept here is creation of credits due to solar system overproduction that will be used at a later time when the solar system isn't producing as much (at night or rainy season, summer). Net Energy Metering by definition is the Utility's way of looking at a Customer's Net situation: in a given amount of time, how much electricity they created versus how much electricity they used. We will look at how Time Of Use (TOU) can work with Net Metering to benefit a Solar homeowner even further.

### Fundamentals to understand NEM:

Monthly bill: A customer enrolled in NEM billing status is billed every month. This minimal monthly amount is for the taxes and fees that a customer never escapes for being grid-tied. With a typical Pell Solar System, this usually amounts to just a few dollars per month.

Year-long billing cycle: Even though the customer has a bill per month, the actual kWh used or created are not charged per month. Instead, it rolls as a credit or debit (think of rollover minutes on cellphone plans as an analogy). At the end of the yearly billing cycle (which begins at the day of PTO-Permission to Operate and yearly thereafter) Edison will look at all the kWh produced and all the kWh consumed during the last year's time and either.

A) Credit the customer for the difference, or... B) Send the customer a bill for the difference.

With a Pell Solar System, the concept is that this is minimal either way; most Solar customers will see a small bill from Edison every year. If they do end up crediting, the crediting occurs at wholesale electricity rates (minimal at ~\$.05/kWh), not worth building a gigantic oversized Solar System for. A year-long billing cycle allows for changes in Solar System production due to seasonal changes: longer days, rainy season, etc. during the course of a year the intent is that it all balances out.

Spinning the meter backward: This commonly-heard term is the basis of Net Energy Metering. During daytime production, the Solar System will often produce more electricity than the house is consuming. Excess electricity produced is fed backward out of the house through the Edison/Utility Meter and into the Grid, where everyone else can use it. The Utility recognizes this addition or production and gives the Solar Customer credit for this production. As daylight diminishes, Solar production decreases, and the customer begins using electricity from the Grid as they always have. But -now- they are using the credits they created earlier, the goal is to balance out.

### Understanding Time of Use (TOU)

NEM and TOU allow Pell Solar to design smaller Solar Systems: By far the single largest advantage NEM when jointed with Time of Use (TOU) is the rate of crediting of daytime solar production in comparison to what is used at night. Because Solar is producing during daytime- when Edison would charge more on TOU- this increases the value of credits created during the daytime. Then, the credits are used at the lower night rate. What this essentially means is that we can build a smaller-sized Solar System still minimize the Customer's electric bill. This relationship is something that Pell Solar has identified by designing many functioning Solar Systems as described and is not commonly fully understood in the industry, which is why Pell Solar can build systems at a greater financial benefit to the Customer knowing they will have a very minimal electric bill without an oversized Solar System. Taking a closer look at TOU.

# UNDERSTANDING YOUR BILL

## 9. Details of new charges

This section shows the details of your energy charges (or credits). If your "net consumed" energy (meaning you used more energy than you generated) you will have energy charges. These charges are calculated monthly based on your usage. Since your energy charges are cumulative, this data is tracked and displayed here for informational purposes only- energy related charges are not due until the end of your relevant period.

## 10. Total Amount Due (Cumulative Energy Charge)

This section provides a breakdown of your charges regarding your net consumption and net surplus energy generation.

### Your cumulative energy charge total as of previous month:

This is the total amount of energy you have consumed or generated from all the previous billing months since your relevant period began. If a negative number is displayed, it means you generated more than you consumed up to this point in time.

### Your current month energy charge total:

This amount tells you your total energy charges or credits for the current billing month.

### Your cumulative energy charge year-to-date:

This amount is the total of all your energy charges (including this month's charges) since your relevant period began. A negative amount displayed will not be the monetary value for any net surplus compensation at the end of your relevant period.

## 11. Energy Charge Total

The amount shows your Energy Charge Total for this billing period. Energy charges and credits are calculated monthly based on your particular SCE rate. This data will be displayed for informational purposes only. As an NEM customer on Annual Billing, you are only required to pay energy related charges at the end of your 12-month relevant period.

# UNDERSTANDING YOUR BILL

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## 9 Details of your tracked charges

Your rate: TOU-D-T  
Billing period: Apr 28 '15 to May 28 '15 (30 days)

### Delivery charges

Energy-Winter On Peak			
Lvl 1 (1% to 130% of bsln)	-214 kWh x \$0.06186	JAMES, DOE	-\$13.24
Lvl 2 (more than 130%)	-30 kWh x \$0.17047		-\$5.11
Energy-Winter Off Peak			
Lvl 1 (1% to 130% of bsln)	215 kWh x \$0.06186		\$13.30
Lvl 2 (more than 130%)	30 kWh x \$0.17047		\$5.11
DWR bond charge	1 kWh x \$0.00526		\$0.01

### Generation charges

SCE			
Energy-Winter On Peak			
Lvl 1 (1% to 130% of bsln)	-214 kWh x \$0.15239		-\$32.61
Lvl 2 (more than 130%)	-30 kWh x \$0.17054		-\$5.12
Energy-Winter Off Peak			
Lvl 1 (1% to 130% of bsln)	215 kWh x \$0.06053		\$13.01
Lvl 2 (more than 130%)	30 kWh x \$0.07868		\$2.36
<b>Energy Charge Total</b>			<b>-\$22.29</b>

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### Additional information regarding your Net Consumption/Generation:

- Your cumulative energy charge total as of previous month: -\$23.99
- Your current month energy charge total: -\$22.29
- Your cumulative energy charge Year-to-Date: -\$46.28
- Your cumulative kWh Year-to-Date: 352 kWh
- Your winter Level 1 allowance: 429.00kWh
- 49.90% applied to On-Peak
- 50.10% applied to Off-Peak

11

## Things you should know

### WHAT'S ON YOUR BILL?

This statement reflects your non-energy related charges due and payable monthly. Your Cumulative Energy Charge is shown to keep you updated. If you have a credit balance in your Cumulative Energy Charge, you are a net generator over your Relevant Period and do not owe any energy charges. However, if your Cumulative Energy Charge is positive, you are net consumer of energy and you will be required to pay this amount at the end of your Relevant Period. Thank you for your participation in SCE's Net Energy Metering Program.

## Fundamentals to understand TOU:

Peak Hours: 12pm-6pm – electric rates are higher (Monday - Friday)

Off Peak Hours: all other hours (6pm at night through 12pm in the morning) – lower electric rates. (Weekends and holidays)

Time of Use is a voluntary program Edison offers to all of its customers who are conservative with their electricity usage during the daytime. As long as a homeowner doesn't surpass a certain level of usage during the daytime peak hours, 12pm-6pm, they will see savings from a discounted electricity rate. For a household that is gone at work or school during the daytime, TOU can be beneficial. For a household where someone is working from home or is home all day, and a sizable portion of their electrical needs come during the daytime, TOU would not likely be beneficial. It depends greatly on the homeowner's situation. As a home with, a properly sized Solar System with proper usage habits will be powering the home during these peak times- often spinning the meter backwards- however, the amount of electricity used from Edison during TOU peak period hours is minimal. The Solar System is powering the home, not Edison. Thus, when the customer is using Edison- at night- they are at the lower off-peak rates. Instant savings.

But that isn't the end of it, the real benefit to TOU- and how a smaller System can nearly eliminate a larger Edison bill- is the crediting bonus during peak hours. We already know that just being on TOU with solar is beneficial- daytime usage is minimal when solar is producing, off-peak hours when solar is off usage is at a lower rate. The big benefit is when the meter spins backward during peak hours 12pm-6pm, the crediting is at a much higher level. Let's look at an example:

Off peak (night usage) from Edison: \$.11/kWh in August

On peak crediting during daytime (going backwards): \$.25/kWh in August

## Understanding Time of Use (TOU)

This means during the daytime, the customer will 'bank' credits at 25 cents to use them back at night at 11 cents! We can design a smaller producing system and still eliminate the Edison bill with this crediting taken into consideration. The challenge here is that some customers will bank more (not at home during the day) than others (who may work from home or blast the AC in the summertime). Thus, it is very important a homeowner going Solar commits to using less electricity during 12pm-6pm so that the solar can spin the meter backwards and credit at the higher rate as much as possible. We are designing systems with this assumption in mind. For those with pools, running the pool pump during the off-peak hours is a must. If the pool pump were to run during the daytime peak hours, the solar system would not likely spin the meter backwards during that time, and no extra credits would be created. It is essential that a homeowner consumes as little electricity during peak hours as possible to fully take advantage of NEM-TOU to eliminate the Edison bill as much as possible.

In the summertime, most homeowners will run their air conditioning. This, like a pool pump, will prevent the Solar System from spinning the meter backwards as the AC is using all the available Solar electricity and often more from Edison on top of it. This depends greatly on the age of the air conditioner and insulation in the home. Most homeowners will run Edison bills during this time- it will show up on the 3rd or 4th page of your Edison bill, the monthly amount on NEM will still be a dollar or two. This is because, as discussed earlier, other times of the year more crediting will take place (think May and June, mild temperature, longer days) which in concept will balance the charges from the AC usage summer months. The idea is, on NEM, to balance over the course of a year. It is very important, because of all these variables a Solar customer 1) watches their cumulative NEM total and 2) consumes as little as they can during TOU peak hours/more on TOU off peak hours to fully benefit from the crediting the Solar System can produce in the right situation.

# UNDERSTANDING YOUR BILL

Once your solar is turned on, you will get your first Solar Bill from Edison.

Getting your first bill can be very confusing, if you don't know how to read it properly. We here at Pell Solar want to make sure you know all you need to know about your solar and any charges you may incur. By now you should have already turned on your system by following the steps on the "TURNING ON YOUR SYSTEM" page. Once your system is turned on you will be billed accordingly to amount of electricity you use over and above the electricity you generate.

Understanding your bill is crucial to getting the most out of your solar, and understanding Net Metering (NEM) & Time Of Use (TOU) will help you maximize your savings with solar.

# UNDERSTANDING YOUR BILL

Once your solar is turned on, you will get your first Solar Bill from Edison.

## 1. Your account summary

Displays the previous months non-energy charges and any previous payments you made toward those charges. Note that any previous payments made toward your energy charges will not be reflected here.

## 2. Total amount of taxes & fees due must be paid monthly

This is **NOT YOUR TOTAL AMOUNT DUE**. This shows the amount of taxes and fees that are applied on monthly basis. **(See PAGE 4 #10 for ACTUAL CHARGES DUE.)**

## 3. Net energy metering monthly billing

Displays your NEM billing month in relation to your 12-month relevant billing period. Your relevant period begins in the anniversary month of when you transferred to NEM billing, and ends 12 months for then. In your 12th month, all energy-related charges will be due.

## 4. Total electricity used this month in kWh

Shows the total amount of electricity you used for the current month. If you "net consumed" energy, this amount will be a positive number, and you will have energy usage charges for the month. If you "net generated" energy, this amount will be a negative number (as in the example) and you will have an energy credit for the month.

## 5. Compare the electricity you are using

Compares your energy usage from month to month. You will be able to see the dips and peaks in your energy usage and generation, and if there are any seasonal trends.



P.O. Box 600  
Rosemead, CA  
91771-0001  
www.sce.com

### Your electricity bill

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Customer account 0-00-000-0000  
Service account 0-000-0000-00  
1000 Edison Way  
Edison Valley, CA 00000  
Rotating outage Group A056

For billing and service inquiries call 1-866-701-7868,  
Mon - Fri 8 a.m. to 5 p.m.  
For emergency services call 24 hrs a day, 7 days a week

Date bill prepared: May 30 '15

#### 1 Your account summary

Credit from previous billing	-\$4.13
Credit balance	-\$4.13
Your new charges	\$1.26
<b>Do not pay. Your account has a credit balance.</b>	<b>-\$2.87</b>

Net energy metering annual billing month #6. **3**

For information concerning your net consumption and generation, please refer to the "Details of your tracked charges" section of the bill.

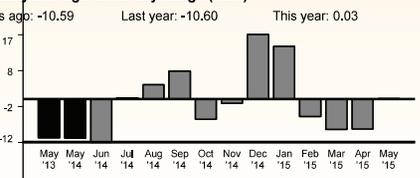
#### 4 Compare the electricity you are using

	Electricity (kWh)
Winter Season - Consumption	
On peak	6
Off peak	497
Winter Season - Net Generation	
On peak	-250
Off peak	-252
<b>Total electricity usage this month in kWh</b>	<b>1</b>

Your next billing cycle for meter 222012-491841 will end on or about Jun 26 '15.

#### 5 Your daily average electricity usage (kWh)

2 Years ago: -10.59 Last year: -10.60 This year: 0.03



**Your monthly usage may be higher than usual...**  
Based on your historical usage pattern, your monthly usage is trending higher than normal. As a result, you may notice an increase in your bill. If you would like information on tips and programs that can help you lower your energy usage and your bill, please visit [www.sce.com/billhelper](http://www.sce.com/billhelper).