



**UNITED
POWER**

Your Touchstone Energy® Cooperative 

Member Guide to Renewable Energy

Understanding Net Energy

By installing solar panels at your service location, you become an independent generator of electricity. Under a net metering agreement with United Power, you also benefit from grid access when you produce more power than you use. As a net metered customer, you can be a net-user, a net-generator, or you can be completely reliant on the United Power system for your power — all depending on the production of your system.



Net User

Your home will use all of the energy produced by your solar system before going to the United Power system for additional power. Whenever your home pulls power from the United Power system, that energy is recorded on the delivered channel of your net meter. The delivered channel represents what power your home needed after using all available solar energy, and is not a measurement of your home's total energy consumption.



Net Generator

When you are producing more energy than your home needs, your excess energy goes back to the United Power system. That "leftover" amount is reflected on the received channel of your meter. The received channel of your electric meter does not record the total production of your solar system, rather it tells you how much excess power you had after your home used all of the available solar generated power.



System Power

If your solar system is not generating any power, your home will pull 100 percent of your power needs from the United Power system. Any power pulled from the United Power system is recorded on the delivered channel of your meter, and reflected as an Energy Charge on your bill.





Your Net Meter Bank and Monthly Bill

As a United Power member with a net meter agreement, your bill is a bit different because you consume both the energy produced by your solar electric system, and the energy you receive from United Power. When you produce more energy than you use, you receive credit for that energy through an energy banking process listed on your bill as your Net Meter Bank. Your current bank balance is printed on your monthly bill.

Adding to Your Bank

When you generate more energy than you use in a month, a negative meter reading will print on your bill, and a “deposit” will be made to your net meter bank. Your net meter bank balance continues to grow as long as you produce more energy than you use each month.

Rate	Meter	PrevRdg	PresRdg	Mult	kWh	Dmd
R1	1234567	1000	850	1	-150	5.968

NET METER BANK	
Previous Balance	400 kwh
Deposit/Withdrawal	150 kwh
Current Balance	550 kwh

Making a Withdrawal

If you use more energy than your system produces, United Power will “withdraw” energy credits from your net meter bank before you are assessed any energy charges. Energy used in excess of your net meter bank balance will appear as an energy charge in your billing detail.

Rate	Meter	PrevRdg	PresRdg	Mult	kWh	Dmd
R1	1234567	1000	1320	1	320	5.968

NET METER BANK	
Previous Balance	500 kwh
Deposit/Withdrawal	-320 kwh
Current Balance	180 kwh

Billing Detail Line Items

Energy Charge is any energy used from the United Power system above what your system generated. If you had excess generation for that month, your energy charge is zero, and your excess generation was “deposited” into your net bank.

Demand Charge is the highest 15-minute interval of consumption over the billing period measured in kilowatts (kW) and multiplied by the per kW rate.

Fixed Charge a fixed monthly charge to cover a portion of the costs for billing, collections, member services, and metering. These are costs that are incurred by all members regardless of the amount of energy used.

Franchise Fees, Sales Taxes depending on where you live, you may be charged a city fee based on a percentage of your monthly electric usage and you may be subject to local and state taxes. United Power does not make a profit on the collection of these fees and taxes. They are passed through from the customer to the appropriate jurisdiction.

Settlement of Your Net Meter Bank

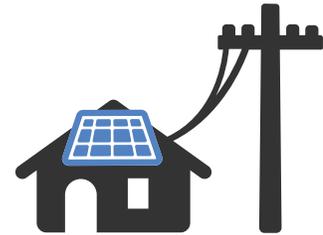
Your net meter bank balance will continue to roll over each month until **March** when all net meter energy banks are settled and returned to a zero balance. Net meter bank balances are paid out at the wholesale energy rate. If you have a balance in your net meter bank, you can elect to receive a check payment for that energy paid to you at the wholesale energy rate, or your balance can be applied as a bill credit to your April bill to help offset future charges.



Demand and Your Solar Panels

Demand charges are applied to all rate classes, including those with solar panels on a net-metering agreement. Through a net-metering agreement, you can connect your system to the grid to return any excess power from your system and then tap into it anytime your system isn't generating enough energy to meet your needs.

This grid access adds tremendous value to your solar investment. Without it, you would have to invest in additional storage and generating equipment, rely on alternative fuel sources and significantly alter your energy use habits. So, whether you use a lot of energy, or just a little, we all need a reliable distribution system to be there. The demand rate ensures that all members pay their fair share of the system's operating and maintenance costs.



Solar or the Grid

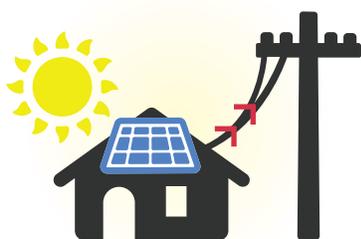
Members with solar panels can reduce energy charges by shifting electric consumption to peak generating periods, but unless you go completely off-grid, there will still be a peak interval during the billing period where you rely on the distribution system for co-op power.

In this example, this solar generating member is a negative energy consumer from about 8 a.m. to about 3 p.m. Then this member's energy use exceeds their production and they begin using co-op power to supplement their needs. They continue using energy from the grid into the evening hours and then hit their demand of 8kW at 7 p.m. The demand in this scenario is probably due to air conditioning and household appliance use that is typical on a warm August evening.



Saving on the Demand Rate

Recommendations to manage demand are the same for all members. Since demand is driven by the amount of power required at once, staggering the use of major appliances is the easiest way to keep demand charges low. Your peak consumption may not always align with the peak output of your solar generating system, and you are most likely going to hit your demand when you operate appliances at night, or when solar generating conditions aren't optimal.





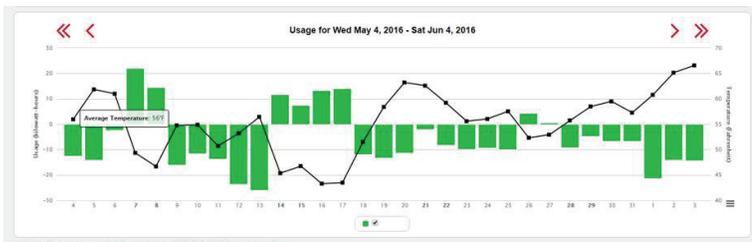
SmartHub Billing & Payment Portal

Online Account Management & Mobile App

Members can view daily usage information, view and pay bills, and make account updates through SmartHub, United Power's billing and payment portal.

Login to SmartHub to use the Usage Explorer and Usage Comparison tools to chart your net usage and monitor your net usage trends. Chart your usage by the month, week or day.

Learn more and access SmartHub at www.unitedpower.com/smarthub



SmartHub is also available as a free mobile app from iTunes or the Android Marketplace.

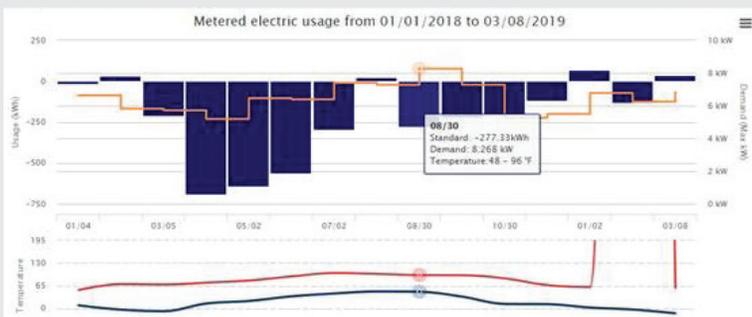


Power Portal

Detailed Energy Consumption Data

United Power's online Power Portal provides a detailed view of energy consumption to help members monitor net energy use.

View and export consumption data at 15 minute intervals to further analyze your net usage as recent as the previous day.



Learn more and access the Power Portal at www.unitedpower.com/powerportal

To activate your utility account in the Power Portal, you will need a unique 4 digit PIN (provided by United Power) and your utility account number (found on your monthly statement).

4 Digit PIN: _____

Account number: _____