

Quick Guide to Going Solar



Magitek

Energy Solutions Inc.

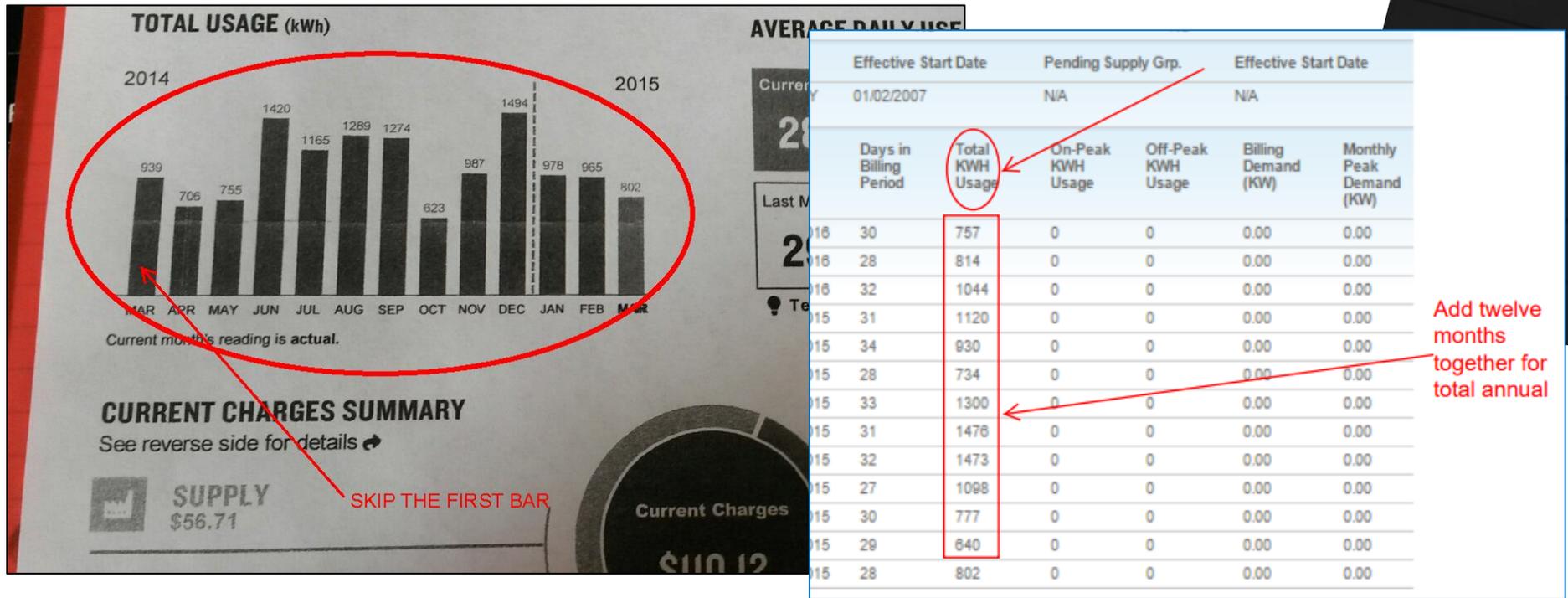
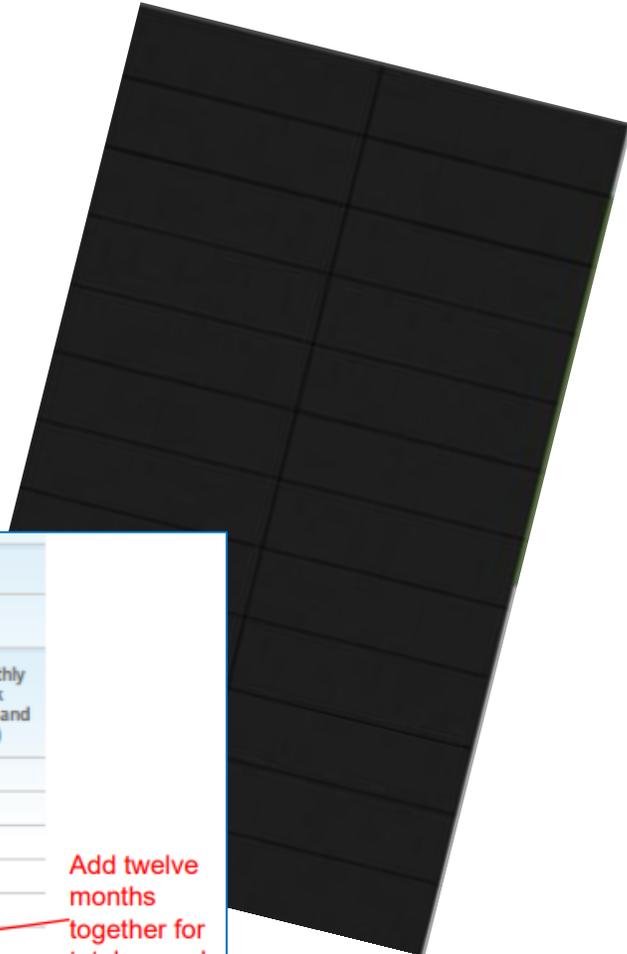
(847) 409-1927

MagitekEnergy.com

Figuring Out How Many Panels You Need

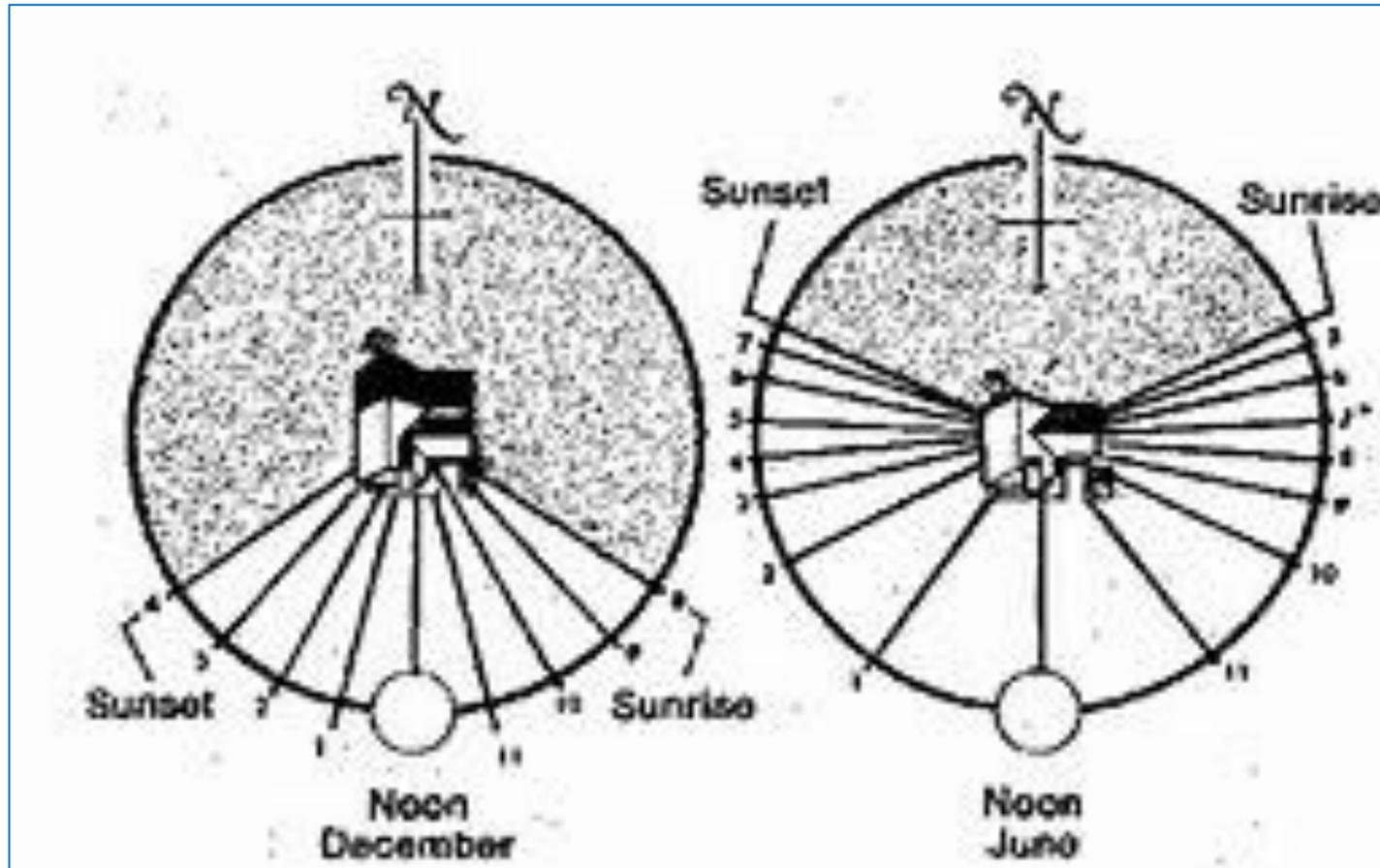
Using a special formula based on your current annual electrical usage and the wattage of the solar panel being installed, an installer will determine how many panels you will need to virtually eliminate your monthly electric bills.

You can find your annual usage by simply adding the last 12 months of kilo-watt hours (kWh) located on the bar graph on your ComEd paper bill or from your online account.



Figuring Out Where to Put Your Panels on Your Roof

Rule out any roof space with a northerly direction. The figure below depicts the sun's orientation to Earth during the Winter and Summer Solstices. The shaded area in the Summer Solstice circle is where the sun's rays will never directly hit your roof at any point in time, and this is the area you want to avoid installing solar panels.



Laying Out Your Panels

Now that it is known how many panels you need and where they can go, the installer can lay them out on your roof.

First, the installer must find out what your village or county codes are. Some municipalities require setbacks for fire department access at the sides and ridge of your roof like this home, pictured.

Installers will take into consideration any trees or obstacles on your roof, like chimneys and stacks that will cast any shadows across your roof, or skylights that take up roof space.

In this depiction, the customer is using 8,000 kW hours annually and will need 18 panels to offset their usage by 100%. Note that the trees will not pose any shading problems on the roof.



Presenting You with an Estimate

In the case of our customer requiring 18 panels, this proposal reflects their cost, percentage of usage offset, savings with incentives and net-metering, and the number of years it will take for this customer to break even on their investment. It is expected this customer will be pay approximately 39% of the costs for this system after the Federal 26% Tax Credit and IL SREC incentives are collected and will break even within 7 years.



Magitek Energy Solutions, Inc.

2408 Dakota Ridge
 Johnsbury, IL 60051
 (847)409-1927
magitekenergy.com

Proposal

Bill To: **Magitek Customer**
 123 Main Street
 Anytown, IL 01234

Service For: **The Customer Residence**
 123 Main Street
 Anytown, IL 01234

Phone: 555-123-4567
 E-mail: magitekcustomer@email.com

Project:	Roof Mounted Solar Array	Electric Account Number:	0123456789
Proposal Number:	1	Date:	9/5/2020
We hereby propose to furnish the materials and labor necessary for the completion of:			
Complete	6.5 kW solar array including:		
System Components Included:		Gross System Cost:	\$21,000.00
18	Solaria Power XT 360	System Cost per Watt:	\$3.24
1	SolarEdge HD Wave 7.6kW Inverter		
18	SolarEdge 400w Optimizer		

Financial Breakdown

Bill To: **Magitek Customer**
 123 Main Street
 Anytown, IL 01234

Service For: **The Customer Residence**
 123 Main Street
 Anytown, IL 01234

Project: Roof Mounted Solar Array			
Proposal Number:	1	Date:	9/5/2020
<small>Estimated, not guaranteed, system production. Actual system may vary by as much as 10% depending on actual installation site conditions.</small>			
Current usage:	8000	Projected system production:	8351
		Percentage offset:	104.39%
1) Incentives		SolarEdge	
Gross System Cost		\$21,000.00	
Less Federal Tax Credit:		\$5,460.00	
Less State of Illinois SREC Payout:		\$7,279.94	
Net System Cost:		\$8,260.06	
2) State Incentive		Projected system SRECs	
SREC (State Renewable Energy Credit) program. 1 SREC = 1000kWh		116.5	
SREC program is a 15 year bulk payout on systems less than 10kW once system is energized.			
SREC program is a 15 year payout of 4 equal annual payments on systems over 10kW in size.			
<small>* Please note that all SREC prices and fees are based upon most current information available at the time of this proposal.</small>			
<small>* Magitek Energy Solutions, Inc. shall not assume liability for changes in the SREC block values.</small>			
		Total SREC Incentive	
Systems under 10kW value of SRECs at \$70.05 ea.			
Less 10% fee, program admin fee.		\$7,279.94	
3) Energy Savings.... Money in the Bank!		Annual	5 years
			15 years
			25 years
Electricity savings at \$.14 per kWh		\$1,169.14	\$5,845.70
Electricity savings at \$.17 per kWh		\$1,419.67	\$7,098.35
Electricity savings at \$.20 per kWh		\$1,670.20	\$8,351.00
			\$21,537.10
			\$29,228.50
			\$35,491.75
			\$41,755.00
4) Value added to property			
Installing a renewable energy system on your property will add value! In Illinois, it is estimated that you will add 30% of the gross installed cost to the value of your property.			
Estimated value added to YOUR property:		\$6,300.00	
5) Return on Investment			
Actual return on investment in years			
System Savings	ROI	ROI with value added	
\$1,169.14	7.07	1.676495116	
\$1,419.67	5.82	1.380643037	
\$1,670.20	4.95	1.173546581	
6) Carbon Offset		Annually	25 Year Life of System
		5428.15 Lbs.	135,703.75 Lbs.

As you can see, when combining incentives with actual value added, your actual return on investment is quite reasonable. Even slight increases in your cost of electricity or the value of SRECs can have a dramatic effect.

Consumer Advise

- **Seek a reliable, licensed and UL or NABCEP certified installer**
 - Verify years of experience
 - Verify all electrical connections are performed by a licensed electrical contractor
- **Check into the company**
 - Ask for references
 - Check out their website
 - Read customer reviews
- **Research the integrity of the product and manufacturers being installed**
 - Manufacturers should have minimum 10 years of production
 - What is warranty on panels/inverters
- **Always get more than one quote**
- **Never install panels facing north**
- **ISEA – Illinois Solar Energy Association**
 - Great resource for more information about solar power and installers
 - www.illinoissolar.org

