# Myths About Solar - BUSTED!!

Myth: Solar panels do not work well in cold climates.

Fact: Solar panels actually work best in cold, sunny conditions as conductivity increases in cold temps making electricity flow more efficiently. As solar panels get hotter, they produce less power from the same amount of light.

Myth: Solar panels can't operate well in snowy or cloudy conditions.

Fact: Yes, snow and clouds will reduce the amount of energy produced. This is why roofs are the worst place for PV and why our PV systems are best when installed on seasonally adjustable mounts.

Myth: I won't live in my home long enough to make my investment in solar back.

Fact: While there are many factors, most PV systems can pay for themselves within 6 to 15 years. PV also increase the resale value of a home by about \$15,000, thus you can still see a significant return on investment when you sell.

Myth: Solar power will get more efficient, so I should wait to buy or install.

Fact: The current technology for solar panels is well established. In fact, we've been using the same solar technology, more or less, since the 1960s. The potential efficiency gains of future panels are small and when measured in total dollars saved on your energy bills is miniscule.









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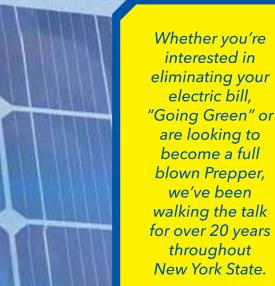




A Veteran-Owned Company

Solar Electric isn't new, my friends!

We have been proving that right here in the Finger Lakes Region since 1997!



#### **How Does Solar Power Work?**



- 1. The Solar panels or modules as they are also referred to are typically installed facing south. These modules are made up of photovoltaic (PV) cells, (silicon sand) which convert sunlight into direct current (DC) power.
- 2. The DC power from the PV modules is then sent to an inverter, where it is converted into alternating current (AC) power, or standard electrical current used in your home or business.
- 3. The alternating current (AC) power travels from the inverter to your electrical panel, often called a breaker box. This power is then ready to use in your home or business.
- 4. The utility meter continually measures your electrical supply; when your PV power system produces more power than you need, the meter literally spins backwards, accumulating credits with the utility company that will offset your next bill. This is called "Net Metering."
- 5. In times of clouds or nighttime you would still buy power from your utility grid like you do now. Please understand that when the utility goes down you will NOT have power unless you select to add battery backup to your Grid-Tied system.

#### Why "Go" Solar?

- 1. Eliminate or drastically reduce your electric bill
- 2. Protection against future price increases
- 3. Energy independence
- 4. Smart, effective investment in your home
- 5. Increase your property value, without increasing your taxes
- 6. "Going Green" will reduce your carbon footprint
- 7. What other investment vehicle (401k, IRA, stocks) are you guaranteed not to lose \$?
- 8. Freedom from the strangle hold of your utility provider and their annual \$ increases.

### Types of Systems from "Least" to "Most" costly:

- 1. Grid-Tied
- 2. Off-Grid
- 3. Grid-Tied with battery back up
- 4. Grid-Tied and AC Coupled

# Types of mounting options from "Best" to "Last Resort" on a performance scale:

- 1. Dual Axis Tracker (DAT)
- 2. Top of Pole, adjustable
- 3. Ground, fixed angle
- 4. Roof, fixed angle

You will find more details on the above at our website: solarandwindfx.com/what-is-re/ under the title "Renewable Energy Explained." Next, select either "Grid-Tied vs Off-Grid" or "PV Array Placement."



### Sample \$ breakdown with household annual usage of 13,000 Kwh

This is a ground mounted system with 12.2 kw of PV modules as pictured on the back cover.

Total Installed Cost	\$39,500	
NYSERDA Incentive	4,880	
Cost after Incentive	34,620	
Federal Tax Credit	11,850	
NYS Tax Credit	5,000	
Your cost after Incentive/Tax Credit \$17,770		
Return on your Investment (ROI)	8.1 Years	

### Sample \$ breakdown with household/ small business annual usage of 22,000 Kwh

This is a Dual Axis Tracking (DAT) system with 15.36 kw of PV as pictured on the back cover.

Total Installed Cost	\$71,300
NYSERDA Incentive	6,144
Cost after Incentive	65,156
Federal Tax Credit	21,390
Section 179 (Depreciation)	21,390

Your cost after Incentive/Tax Credit \$22,376
Return on your Investment (ROI) 5.9 Years

System cost is based on your annual electrical usage, NOT the square footage or size of your home or business.

Low interest loans available via third party with payments in most cases equivalent to the electric bill you will no longer have.

> No pushy salespeople. No BS. No Games. Get the straight story from a Nationally Certified and Accredited Professional.