

Selling Solar in the Current Market



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Conference & Expo

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Christopher LaForge –

NABCEP Certified Photovoltaic
Installation Professional



IREC Certified Master Trainer - PV
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Selling into the current market requires and understanding of:

Current Technology

The latest installation methods

The state of your local market

Buyers Motivations

Effective sales requires up to date understanding of the major Solar sectors and which one you may want to work in....

These include: Solar thermal –

Hot air

Hot fluid (domestic Hot water &
space heating applications)

Solar Electric –

4 system types

Today I will be directing most of the information to selling in the Solar Electric sector –

To find more information in the solar thermal sector please look into the training options at the Midwest Renewable Energy Association:

<https://www.midwestrenew.org/courses>

or contact our local providers!

RREAL

Energy Plus



RREAL

Rural Renewable Energy Alliance

RREAL works at all sectors of the industry and specializes in hot air systems
- they are our local manufacturer of the “Solar-Powered Furnace” – RREAL based in Pine River Minnesota!

For Advice on Solar water systems We have our local installation company – Energy Plus – They work in all the sectors and have expertise in Solar thermal from a local perspective...



To get an Idea of the current issues in installation techniques you can visit the NABCEP website and download our *Resource Guides* Which include:

NABCEP PV Installation Professional Resource Guide

NABCEP Solar Heating Installer Resource Guide

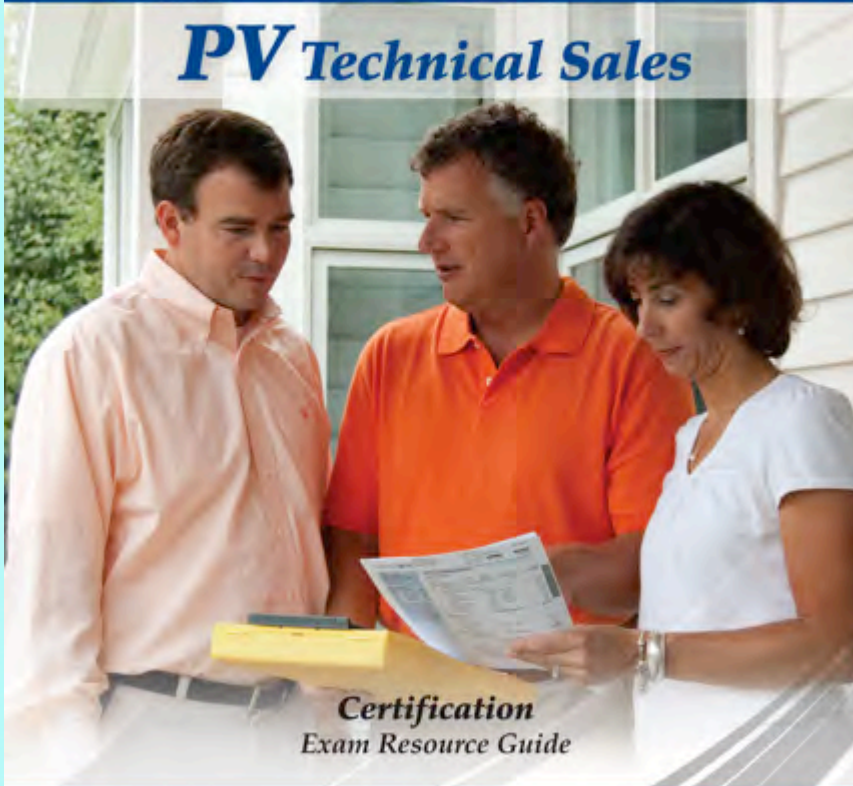
NABCEP PV Technical Sales Resource Guide

The guides will show the level of expertise expected by professionals in each solar sector...

The Technical Sales guide is especially pertinent to our topic today...

NABCEP

PV Technical Sales



Certification
Exam Resource Guide

www.nabcep.org

North American Board of
NABCEP
Professional Energy Administrators

Reviewing the PV Technical Sales guide will orient you to the skills and knowledge base needed to work effectively in the PV sales sector of the current Solar market...

Understanding your Market requires research into:

locally available incentives

Market trends

and...

Client motivations...

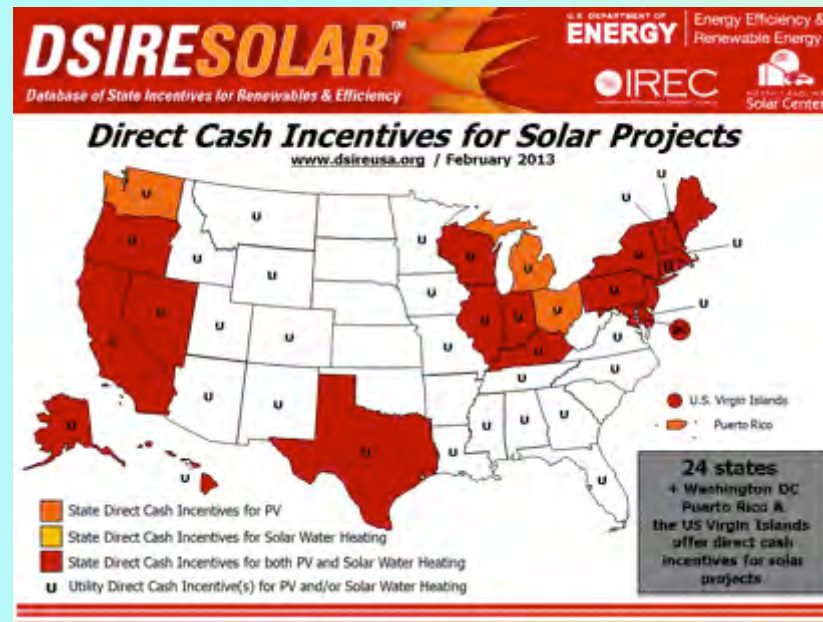


To Find your area's incentives surf to:

DSIRE: Department of Energy run web site for RE and Efficiency
Incentive programs



Within the pages are the Solar specific pages on a state by state basis...



Minnesota Example:

PACE Financing

- [Local Option - Energy Improvement Financing Programs](#)

Performance-Based Incentive

- [Made in Minnesota Solar Energy Production Incentive](#)
- [Xcel Energy - Solar Production Incentive](#)

Property Tax Incentive

- [Wind and Solar-Electric \(PV\) Systems Exemption](#)

Sales Tax Incentive

- [Solar Energy Sales Tax Exemption](#)

State Loan Program

- [Fix-Up Loan](#)
- [Value-Added Stock Loan Participation Program](#)

State Rebate Program

- [Made in Minnesota Solar Thermal Rebate](#)

Utility Grant Program

- [Xcel Energy - Renewable Development Fund Grants](#)

Minnesota Example Continued:

Utility Rebate Program

- [Austin Utilities - Solar Rebate Program](#)
- [Brainerd Public Utilities - Renewable Incentives Program](#)
- [Marshall Municipal Utilities - Solar Thermal Water Heater Rebate Program](#)
- [Minnesota Power - Solar-Electric \(PV\) Rebate Program](#)
- [Minnesota Power - Solar-Thermal Water Heating Rebate Program](#)
- [Moorhead Public Service Utility - Renewable Energy Incentive](#)
- [New Ulm Public Utilities - Solar Electric Rebate Program](#)
- [Owatanna Public Utilities - Solar Rebate Program](#)
- [Rochester Public Utilities - Solar Rebate Program](#)
- [Shakopee Public Utilities - Commercial and Industrial Energy Efficiency Rebate Program](#)
- [Xcel Energy - Solar*Rewards Program and MN Made PV Rebate Program](#)

Minnesota Example Continued:

Minnesota Power - Solar-Electric (PV) Rebate Program *Program*

Overview:

State:MinnesotaIncentive Type:Utility Rebate

ProgramEligible Renewable/Other Technologies:Photovoltaics

Applicable Sectors:Commercial, Industrial, Residential

Amount:Base Rebate: \$1,000/kilowatt DC NABCEP Bonus: \$500/kilowatt

Nonprofit Bonus: \$500/kilowatt

Maximum Incentive:\$20,000 or 60% of installed costs, including NABCEP and Nonprofit bonuses

One rebate per customer per year

Equipment Requirements:Install new components, including all major components. PV modules must come with a 20-year or greater manufacturer's performance warranty. All inverters must come with a minimum 5-year manufacturer's performance warranty.

Installation Requirements:Systems must be installed by an approved installerProgram

Budget:\$150,000 for PV and Solar Thermal (2015)

Start Date:2004Web Site:<http://www.mnpower.com/Environment/SolarSense/>

Minnesota Example Continued:

Summary: Minnesota Power offers a rebate of \$1,000 per kilowatt (kW) DC for grid-connected solar-electric (PV) systems, with a maximum award of \$20,000 per customer or 60% installed costs per customer. This program, which began in 2004, is available to the utility's residential, commercial and industrial customers that receive retail electric service, subject to availability of funding. Originally, Minnesota Power's rebate for PV systems could be combined with the Minnesota Office of Energy Security's Solar-Electric (PV) Rebate Program; however, the state program is no longer available. The 2015 program funds will be awarded on a lottery basis.

Customers applying for the SolarSense program must submit an [interconnection application](#) between January 1 and February 28 in order to be considered in the lottery.

The SolarSense Thermal Water Heating program offers a rebate of up to 25% of project costs, not to exceed \$2,000 for single family homes, \$4000 for 2-3 units, \$10,000 for 4 or more family units or \$25,000 for businesses.

Application materials are available on the program web site. Please see the program website for more information.

Customers who choose to install a solar system on their home or business may be eligible for a 30% federal investment tax credit (ITC), which helps to reduce the installed cost of the system. Eligible equipment includes solar panels, solar water heaters, small wind systems, and fuel cells. The 30% ITC is available through December 2016.



The DSIRE is your one stop Web-Site for National and state incentives...

It outlines each program and provides links for each one...
Having a clear understanding of your venues' available incentives is essential to providing clients with the tools and motivation to get their system started...

Being able to provide a service of filing for the clients available incentives gives you a strong edge in the marketplace...

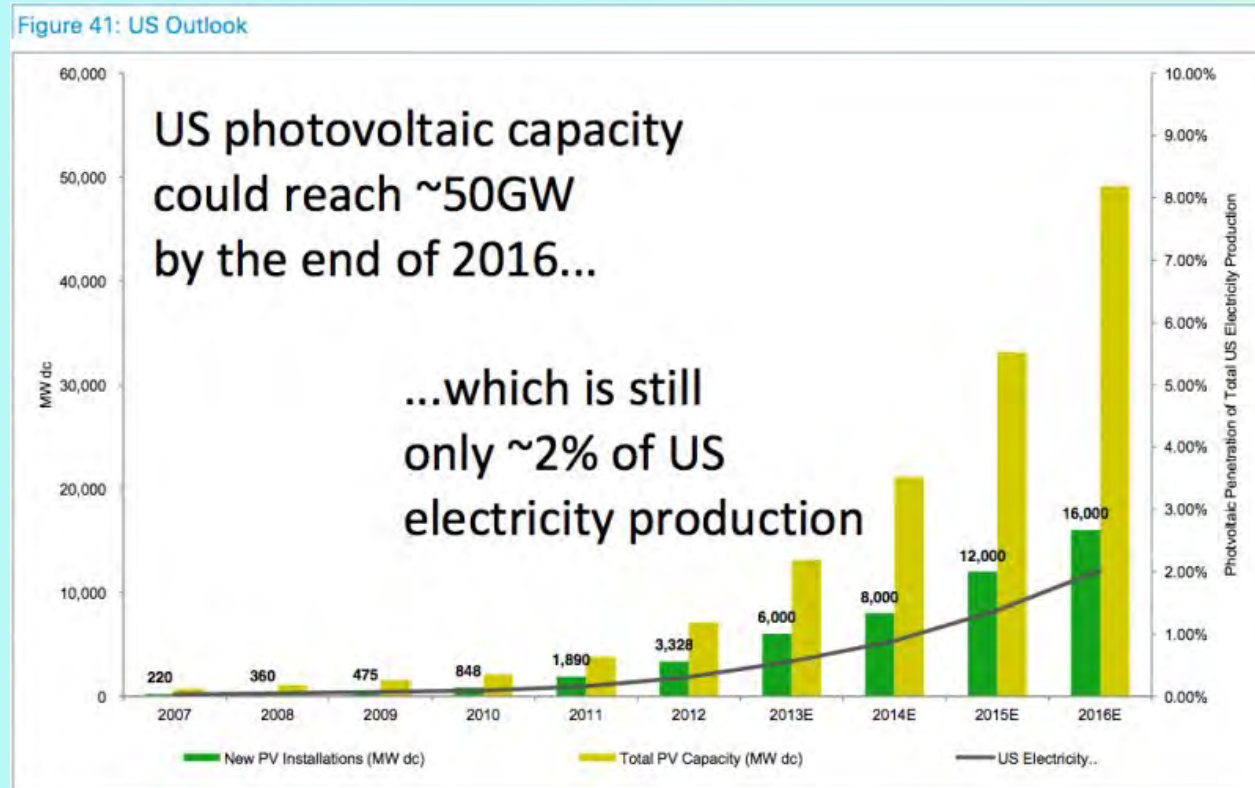
Search investment publications for National Market trends – From: Business Insider.com - THE REVOLUTION IS REAL: Five Reasons Why US Solar Growth Is Going To Explode (9/5/13)

1) Solar is already cost competitive in 10 states.

2) Solar will soon be cost competitive in 12 other states.

3) Renewable corporations are getting smarter about how they're structured.

4) The expiration of the solar investment tax credit in 2016 could see a flurry of new installations coming on line.



Look to Environmental Journals for additional Market information:

Like this from “E” –

“... a recent report from Deutsche Bank shows that solar has already achieved so-called “price parity” with fossil fuel-based grid power in 10 U.S. states. Deutsche Bank goes on to say that solar electricity is on track to be as cheap or cheaper than average electricity-bill prices in all but three states by 2016— assuming, that is, that the federal government maintains the 30 percent solar investment tax credit it currently offers homeowners on installation and equipment costs. - See more at: <http://www.emagazine.com/earth-talk/rooftop-solar-finally-cost-competitive-with-grid-in-u.s#sthash.9F56kr6K.dpuf>”



Understand your Client's Profile:

9 Surprising Things About People Who Go Solar (From Pure Energies, By By Matthew Wheeland, June 18th, 2014)

1. They Don't Do It For the Environment

Yeah, saving the world is nice, but the majority of polled homeowners who went solar did it for the money. Without the economic benefit of going solar, nearly 3 or 4 homeowners say they wouldn't have done it. As a real solar owner told us, "I am more conservative. I care more about jobs than the environment. Going solar was purely a financial decision. I showed a five-year payoff with the amount of electricity I use."

2. They're Not All That Liberal

Ultra conservatives and ultra liberals alike go solar, but the average solar homeowner is nearly the textbook definition of 'middle of the road.' On a scale of 1 to 7— with one being extremely liberal, and seven extremely conservative, most homeowners with solar power fall in the middle, with a score of 3.34.

3. They're Not Rich

They're actually penny pinchers. The average solar homeowner had a combined household income between \$76,000 and \$100,000 when they decided to go solar— well below the \$150,000 level that most Americans consider "wealthy." 70% of solar homeowners say they're "savvy spenders" or "budget conscious."

4. They're Mostly Guys

Despite their heavy role in most major purchases and a track record of ingenuity when it comes to money-saving strategies for the household, women are strangely underrepresented when it comes to buying or leasing solar.

Among married couples of the opposite sex, 68% of the time the husband was the first person in the household interested in going solar. 77% of the time, the husband was also the person who did the most footwork to make solar happen.

Why is this so surprising? 77% of women take primary or equal responsibility for paying their electricity bills. 97% of women are conserving electricity in their home in a variety of ways, from turning down the thermostat to buying energy-efficient appliances. Women also support solar power— 90% of women think solar should play a very or somewhat important role in our country's energy future.

A real solar homeowner told us, "My wife was really against it. Now she constantly tells friends, co-workers, and clients how much she is saving every month with our system."

5. They're Really Into Cars

Solar homeowners love their gadgets— especially their rides. One of the most surprising things about the responses is how many people mention their love of cars. With a home solar system, people are powering their electric cars for free or feeling better about offsetting their gas-guzzlers.

44% of solar homeowners say they're "tech crazy" or "gadget crazy." These are just a few of the things that solar homeowners told us:

6. They Like to Crank the A/C

Solar homeowners love to indulge. They crank the A/C in the summer guilt-free and without a worry about what they'll pay at the end of the month. Here's what real solar owners told us:

"My husband likes his air conditioning in the summer, which gave us the extra incentive to purchase the solar panels."

"I no longer bug my wife about running A/C in the summer or leaving lights on...and I secretly appreciate turning A/C on in the summer more often too."

7. 18% Have Been in the Military

Nearly a third of solar homeowners consider themselves resourceful, ready-for-anything types— 29% say they're self reliance fans or preparedness prone. That makes sense considering roughly one in five has served in a branch of the U.S. military.

8. They're Somewhat Religious

Atheists and evangelicals both love solar, but the average solar homeowner is, once again, noticeably moderate in his or her beliefs. On the religious spectrum from “not at all” to “extremely” religious, most solar homeowners place themselves nearly in the middle of the road at “a little religious/spiritual.” On a scale of 1 to 5, with one being not at all religious or spiritual and 5 being extremely religious or spiritual, the average solar homeowner had a score of 2.37.

9. They're Crushing Wall Street

In a time when many investors are struggling to find ways of earning even a 2 or 3 percent rate of return, a high ratio of people who bought solar say they're using their solar system to get returns twice and even three times as high. Note, rates of return vary depending on current cost of electricity and other factors.

Before going solar, homeowners pay an average electricity bill of \$177.60. After solar, that drops to just \$55. That adds up to an annual savings of \$1,471. Real solar homeowners told us:

“I figure I'm earning about 8 percent on my investment. And it's tax free! Where can you get that rate now?!”

“Why wouldn't I want to invest in something that returns at least 16% on my money, year in and year out?”

“We figured the one sure thing in life was that the electricity rate would not go down over time. It was a good investment.”

“My solar system will pay itself off in 5-6 years. Then the savings will help fund my children's college education.”

Moving Forward - Training opportunities:



<https://www.midwestrenew.org/training>



<http://www.solarenergy.org>

Questions?

Thank you for your interest in Solar Energy!

