NET METERED SOLAR PANEL PERMITTING

STEP	RESPONSIBLE PARTY		DETAILS/EXPLANATION
1	**Property Owners or Contractor**		Obtain **PHOTOVOLTAIC PROJECT CLEARANCE LETTER** for solar site plan from the **South Davis Metro Fire Agency** (submit site plans via email to Fire Marshal, Casey Vorwaller, at **cvorwaller@sdmetrofire.org**). (**CLEARANCE LETTER** must be included with solar application materials.) See Attachment 6, *South Davis Metro Fire Agency "Solar Site Plan Requirements,"* for Fire Code guidelines.
2	**Property Owners or Contractor**		Obtain **BLOCK DIAGRAM (ONE-LINE) APPROVAL** for solar plan from **Bountiful City Light & Power** (submit site plans via email to power company solar representatives Kim Bushnell (**kbushnell@bountiful.gov)** and Jerrell Jensen (**jjensen@bountiful.gov**). Upon approval of the block diagram, Power will stamp the diagram. Please include the stamped diagram with your solar application. Site plan should include: property owner's name, property address, and photovoltaic system size (in kW).
3	**Property Owners or Contractor**		**SUBMIT COMPLETED SOLAR PERMIT APPLICATION PACKET AND PAY $50 ADMINISTRATIVE FEE:** See Attachment 1 for a list of items to be submitted. Please use the check-list provided to ensure your application is complete. **PLEASE NOTE: INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED.**
4	**Bountiful City Planning & Engineering**		Approve solar plans. (Applicant will be notified when permit is ready for issuance.)
5	**Contractor or Property Owner**		Pick up permit and pay NET Metering fee* and Building Permit fees.**
6	**Contractor or Property Owner**		Upon completion of solar installation, call Engineering at (801) 298-6125 for INSPECTION.
7	**Bountiful City Engineering**		Engineering INSPECTION at property.
8	**Bountiful City Engineering**		Contact Power Company with approval to attach Solar Power Meter.

PHONE NUMBERS	
Planning:	801 298-6190
Engineering:	801 298-6125
Power:	801 298-6072 (Kim or Jerrell)

PERMIT COSTS	
Application Fee	$50.00
*NET Metering	$525.00
**Building Permit for City	$300.00
**Building Permit for State	$3.00
**Building Permit for Plan Check	$30.00
TOTAL	***$908.00***

ATTACHMENT 1

SOLAR PANEL APPLICATION PACKET

Please include the following with your application (8 ½ x 11" paper, single-sided only)**:**
INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

☐ **SITE PLAN**: Two sets of the proposed site plan drawn at 1:10 scale or as required by the City Engineer and City Planner. A site plan shall include:

- Plan view (bird's-eye) of site with placement of solar panels.
- A north arrow, the scale of the drawing, and the date of the drawing.
- Street names and addresses.

FOR GROUND-MOUNTED SOLAR ARRAYS, THE FOLLOWING:

- Property lines with dimensions.
- All sidewalks, driveways, curbs and gutter, and parking areas.
- All existing easements, rights-of-way, and any other restrictions on the use of the property.
- Existing buildings, proposed buildings, and other significant features on the site.
- Existing buildings and significant features located on adjacent properties within 50 feet (50') of the subject property boundaries.
- When required by the City Planner or City Engineer, and for all new construction, a survey including both existing and proposed contours of the land at intervals of two feet (2') or better.

☐ **ONE-LINE DIAGRAM** (electrical diagram or block diagram): Two sets (diagram must follow Bountiful City Light & Power sample diagram included in the solar packet – Attachment 4**).**

☐ **ENGINEER ANALYSIS LETTER:** Engineer's letter should include an analysis of the existing roof structure with added solar equipment and uplift resistance (compliant with current code), and it should indicate the engineer has based analysis on a site visit or has examined photos.

☐ **COMPLETED SOLAR PACKET FORMS:**

☐ Solar Panel Questions (Attachment 2)
☐ Photovoltaic System NET Metered Agreement (signed by prop. owner) (Attachment 3)
☐ Bountiful City Light & Power – One Line Diagram form (Attachment 4)
☐ Building Permit Application (Attachment 5)

☐ **SPEC SHEETS:** Solar product information

☐ **PHOTOS:** Electrical service (City meter main with disconnect)
3 CLEAR Photos: Location (10 ft either side), Dead Front ON, Dead Front OFF

☐ **SOUTH DAVIS METRO FIRE AGENCY:** Approval Letter (See Attachment 6 for guidelines)

☐ **$50 APPLICATION FEE**

For Office Use Only

Date Rec'd _____	☐ $50 App Fee Rec'd ___	☐ Solar info to POWER ___
☐ Fire: Ltr of Approval	☐ Permit App	☐ Spec sheets
☐ Questions Complete (kw>10)	☐ Site Plan (2 sets)	☐ Elec serv photo
☐ NET Meter Agt (signed prop owner)	☐ One-Line (2 sets, 2 meters)	☐ ____KW _____ panels
☐ BCLP Diagram (signed)	☐ Engineer Ltr (155 mph, photos?)	☐ Check prop owner

Department of Planning and Economic Development
795 South Main Street • Bountiful, Utah 84010 • Phone 801.298.6190

ATTACHMENT 2

BOUNTIFUL
EST. 1847

SOLAR PANEL QUESTIONS

(See Bountiful City Code Section 14-14-126 for additional information.)

Size of Array	
1. Array Dimensions *2. Total Number of Panels* *3. Total rating of photovoltaic system*	1. 2. 3. _____ KW
Mounting Location	
Where will the panels be mounted? (roof/wall/other)	
What is the roof pitch? (please list as rise/run, e.g. "5/12")	
1. What is the roofing material? (asphalt shingle/tile/steel/other) *2. What is the age & condition of the shingles?* *3. Describe the roof construction (rafter/ truss/joist).*	1. 2. 3.
Engineering Analysis	
How will the panels be connected to the roof?	
Please summarize the engineer's analysis of the existing roof structure with added solar equipment.	(do not simply refer to an attachment)
Is there adequate uplift resistance? *CODE REQUIREMENTS:* *155 mph Exp B ASCE 7*	

Service Upgrade	
Will you be performing a Change of Service as part of this Solar Permit? **This may also be done by separate Permit prior to the Solar Panels Application. The Fee is the same. Please contact Engineering @ 801-298-6125*	Will the new service be: 1. _____ Add $75.00 Overhead 2. _____ Add $150.00 Underground 3. _____ No Additional Fee - No Change of Service Required

ATTACHMENT 3

PHOTOVOLTAIC SYSTEM NET METERED AGREEMENT

It is understood and agreed that a NET Metered Service for a photovoltaic power system

for _____ (customer name)

at _____ (customer address)

with a total rating of _____ KW,

[ ] owned by the customer, or

[ ] leased from _____ (company), or

[ ] power purchased from _____ (company),

will be connected to the Bountiful City Light & Power (BCLP) system under the following conditions:

1. The customer acknowledges that all BCLP rates, fees, and deposits are subject to change at any time for any reason as approved by the City Council, and that there will be no grandfathering of those rates, fees, and deposits for existing customers.

2. The customer acknowledges that BCLP will retain all Renewable Energy Certificates (RECs, aka "Green Energy Credits") for all power generated on NET Metered systems installed on BCLP's interconnected system. The customer hereby transfers the RECs associated with the installation at the above address to BCLP.

3. The customer is required to obtain a building permit from the City of Bountiful, apply for NET Metered service, and pay the NET Metered connection fee prior to the start of construction.

4. The customer is required to pay the monthly NET Metered charges. By requesting and accepting the NET Metered service, the customer agrees to abide by the terms and conditions outlined in the "Electric Rate Schedules" and "Electric Service Policies and Electric Service Agreements" of BCLP as may be amended from time to time. A copy of these policies is available from BCLP or online at www.BountifulUtah.gov.

5. The customer is required to obtain prior approval from BCLP for the location of the electric service meter, the photovoltaic meter, and the disconnect switch prior to the start of construction.

6. The customer is required to furnish and install the photovoltaic meter base and the photovoltaic disconnect switch, in addition to the electric service meter base, according to all applicable codes. The customer is required to keep the area in front of and immediately around the meters and the disconnect switch clear and accessible to allow maintenance and reading of the meters.

7. A minimum of five working days will be required for BCLP to complete the electrical connection after the customer has complied with all construction installation requirements, applied for NET Metered service, paid the applicable connection fee, and received clearance for the photovoltaic system installation from the Building Inspector.

Dated _____ Permittee _____
(customer signature)

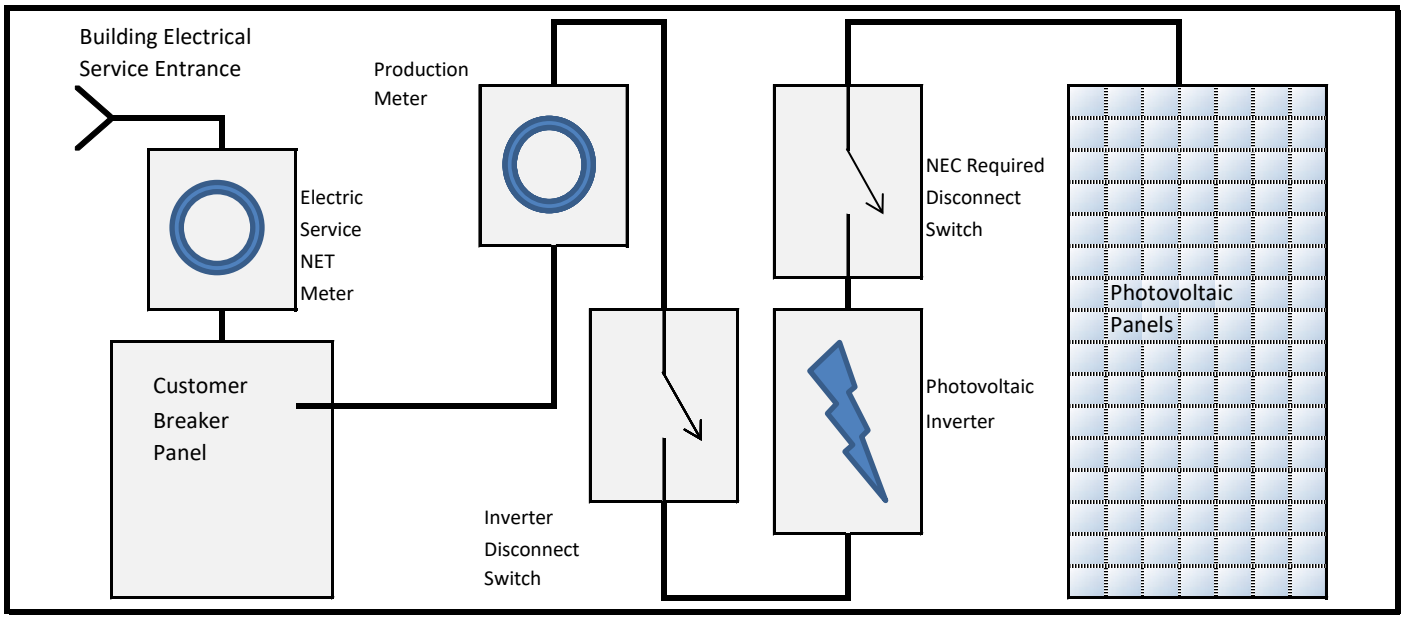
Bountiful City Light & Power

Supplemental Information For Installation Of
NET Classified Photovoltaic Electric Generation Systems

A Line Diagram Of The Installation Showing Location Of Equipment Is Required
I WILL FOLLOW THE DIAGRAM OUTLINED BELOW

_____
Signature Of Property Owner Or Contractor

Sample System Block Diagram - Shown below is a simple block diagram for a NET Metered photovoltaic electric generation system which interconnects with the BCL&P electrical system.



NET Metered Production Meter Base

The customer is required to provide and install a meter base in-line between the inverter disconnect switch and the customer's service entrance cable. BCL&P will provide the meter and will monitor the total electrical generation of the photovoltaic system. The location of the meter base for the Production Meter must be approved by BCL&P prior to construction.

Visible Disconnect Switch

The customer is required to provide and install a visible disconnect switch between the photovoltaic system inverter and the customer's breaker panel. It should be located relatively close to the NET Metered Production Meter. The location of the disconnect switch must be approved by BCL&P prior to construction.

Photovoltaic System Size Limitations

For residential single-phase customers, the maximum allowable photovoltaic system size is 10 kW.

For commercial customers with single-phase service, the maximum allowable photovoltaic system size is 10 kW, or 75% of their peak metered energy demand, whichever is greater.

For commercial customers with three-phase service, the maximum allowable single-phase photovoltaic system size is 5 kW. For systems larger than 5 kW, a three-phase inverter is required. The maximum allowable photovoltaic system size is 30 kW, or 75% of their peak metered energy demand, whichever is greater.

ATTACHMENT 5

BOUNTIFUL CITY
BUILDING PERMIT APPLICATION
SOLAR PANELS

DATE OF APPLICATION: VALUE OF PROJECT:

ESTIMATED START DATE: ESTIMATED COMPLETION DATE:

BUILDING ADDRESS:

PROPERTY OWNER

NAME: PHONE:

ADDRESS: EMAIL ADDRESS:

GENERAL CONTRACTOR:

ADDRESS: CONTACT PERSON:

PHONE: PHONE:

EMAIL ADDRESS: EMAIL ADDRESS:

STATE LICENSE NO:

ELECTRICAL CONTRACTOR: PHONE:

ADDRESS: STATE LICENSE NO:

EMAIL ADDRESS: CONTACT PERSON:

BOUNTIFUL CITY ENGINEERING DEPARTMENT:
City Hall, 795 South Main Street, Bountiful, UT 84010
PHONE: 801 298-6125
Office Hours: Monday-Thursday, 7:00 a.m. – 6:00 p.m.

FOR OFFICE USE ONLY

DATE ENTERED: _____ **PERMIT NO:** _____

PLANNING REVIEW COMPLETE		ENGINEERING REVIEW COMPLETE		BUILDING OFFICIAL REVIEW COMPLETE	
DATE	INITIALS	DATE	INITIALS	DATE	INITIALS

ATTACHMENT 6

South Davis Metro Fire Agency "Solar Site Plan Requirements"

All solar plans are required to have a **South Davis Metro Fire Agency Photovoltaic Project Clearance Review Letter** prior to submittal to Bountiful City.

Solar site plans should be submitted to Fire Marshal Casey T. Vorwaller, South Davis Metro Fire Agency, via email: cvorwaller@sdmetrofire.org. Plans will then be reviewed for firefighter and occupant safety and, if approved, a *Photovoltaic Project Clearance Review Letter* will be issued. Please address all fire code questions to Fire Marshal Vorwaller.

Per the South Davis Metro Fire Agency, the items they will be looking for on the reviews will be:

1. An aerial site plan, preferably a satellite image (google maps), of the structure,
2. Location of the panels on the structure including setback distances from the roof ridge, sides, and any roof projections (chimney, skylights, etc),
3. The location of the main shut off for the array, including what identification signs will be used,
4. A description of the type of PV system being installed (a/c, d/c, grid-tie, battery, stand alone, etc.).

Please include the following on the application:

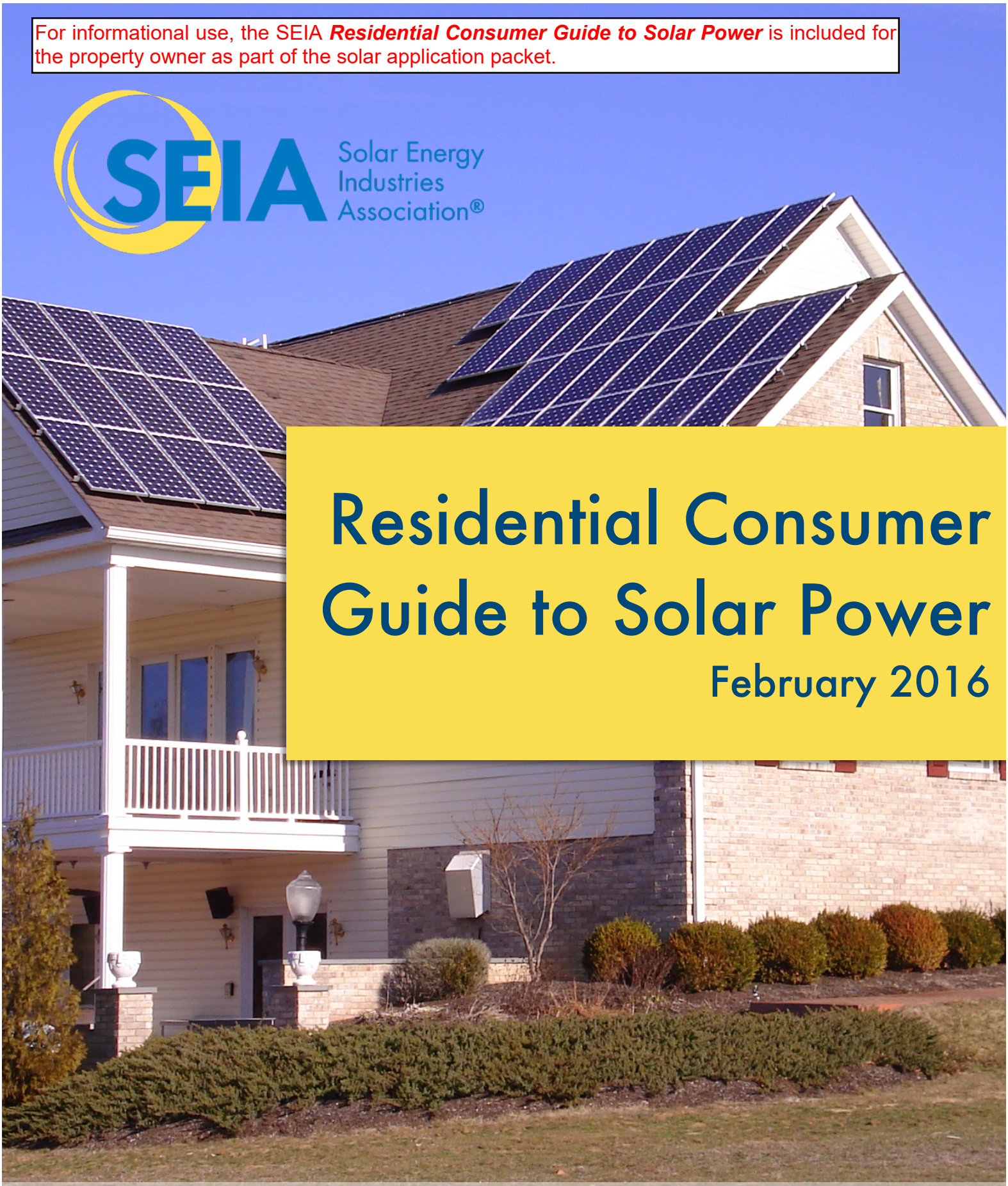
1. Name of Project/Residence/Business
2. Physical address of project including which city it is in
3. Contact info for solar installation company including address, phone number, email address, name of designer, name of installer.

South Davis Metro Fire Agency Contact Information:

Casey T. Vorwaller
Fire Marshal
South Davis Metro Fire
cvorwaller@sdmetrofire.org
Office: (801) 677-2407
Front Desk: (801) 677-2400

For informational use, the SEIA ***Residential Consumer Guide to Solar Power*** is included for the property owner as part of the solar application packet.

SEIA Solar Energy Industries Association®



Residential Consumer Guide to Solar Power

February 2016

SEIA | 600 14TH Street, NW | Suite 400 | Washington, DC | 20005 | www.seia.org

Introduction

Deployment of solar energy systems in the U.S. has grown rapidly over the past decade. Costs have dropped, and new ownership and financing models allow more Americans than ever to choose solar. Solar is now available as a power choice in all fifty states. Going solar is a significant decision, similar in scope to getting a car. You should understand the basics of solar energy, your options to go solar, and what questions to ask solar professionals. You are more likely to be satisfied if you are an informed consumer.

How Solar Works

Today, most residential solar systems are photovoltaic ("PV") systems. PV systems generate electricity through two main components:

- Panels (or modules) that convert sunlight to electricity; and
- Inverter(s) that convert(s) direct current (DC) to alternating current (AC) for use in your home

Generating Electricity

The amount of electricity (measured in kilowatt-hours, or kWh) produced by any solar system depends on two factors:

- The power rating of the system (measured in kilowatts, or kW); and
- The amount of sunlight that the system receives. Calculating the amount of sunlight a solar system receives depends on several factors:
  - The location of your home (for example, homes in Phoenix receive more sunlight on average than Seattle)
  - The orientation of the planned system (the roof angle/pitch, and compass direction impact how much of the sunlight in your area hits the panels)
  - Shading from nearby objects (such as chimneys, trees or neighboring buildings)

Your Ownership Options

Today, Americans have ownership options for solar similar to those for cars. It's important to understand the differences and choose the one that's right for you. The main options available today are listed and explained below:

- Purchase a system with cash or a loan and own both the system and all the power it produces
- Lease a system and own only the power it produces home
- Enter a "power purchase agreement" (PPA) to buy power from a system owned by a solar company at an agreed-upon rate

PURCHASE

Like buying a car, you can purchase a solar system outright with cash or with a loan. When you buy the solar system, you are the owner and benefit from all electricity the system produces. You are usually responsible for system upkeep, although some providers offer maintenance services on purchased systems. In most jurisdictions, you also are the beneficiary of any tax credits or other incentives that promote solar energy.

LEASE

You can lease a solar system for a certain period of time. The solar company owns the system and leases it to you to use it and benefit from the electricity it produces. The solar company is responsible for upkeep. You make monthly payments to the solar company at the agreed upon rate specified in the lease for use of the system. Some solar companies will allow you to lease with no initial costs ("no money down"). Some companies also give you an option to purchase the system after a certain amount of time.

POWER PURCHASE AGREEMENTS (PPA)

Some consumers prefer just to pay for the electricity generated from the system rather than entering into a lease for the system itself. In a power purchase agreement, you agree (i) to allow the solar company to install and own a solar system on your property, and (ii) to purchase the electricity produced by that system for a set rate and agreed-upon terms specified in a contract. Some companies give you an option to purchase the system after a certain amount of time.

Moving Forward

When evaluating your options to go solar, you should always do your homework, talk to friends and neighbors who have chosen solar, use common sense, and be active and engaged in dealing with solar companies. Below are some suggestions on how to become an informed consumer.

KNOW YOUR SITUATION

- *Know your electricity usage*. You should understand how much electricity your home uses. Your utility bill will show your electricity usage in kilowatt-hours (kWh) and the amount you pay for that electricity. Are you planning any changes that will affect your electricity use (such as buying an electric vehicle, planning an addition to your home, or improving your home's energy efficiency)? Discuss your usage with the solar companies you interview to get a system sized for your needs.
- *Know your roof*. Is your roof appropriate for solar? Look at its physical features and discuss with a solar professional. A solar professional can calculate the amount of sunlight expected to reach a planned system over the course of a year. Does it receive a good amount of sunlight or is it mostly shaded? What about the age of the roof? If you plan on replacing it soon, you may want to replace it prior to a rooftop solar installation. In America, roofs facing due north are not good candidates for solar because they don't receive direct sunlight.
- *Know your finances*. Like any major decision for your home, it's wise to understand your finances when shopping for solar systems. Although sunlight is free, buying or leasing solar systems, or paying for electricity under a PPA, are not.

DO YOUR HOMEWORK

- *Get the best deal*. As with any major purchase, make sure to get multiple bids for your solar system. Many Americans will find the market quite competitive, with multiple solar companies competing for your business. Use this guide and other resources, and compare costs and terms from different firms.
- *Research your solar company*. Before entering an agreement with a solar company, do your homework. Ask for references of solar installations in your area and call them. Ask for proof of licensure, and check with your county or state to ensure the firm is in good standing. Ask if they are a member of the Solar Energy Industries Association (SEIA), the national trade association for

solar that requires all its members to abide by a Code of Ethics. You can also check with the local Better Business Bureau and other consumer guides.

- *Understand any tax credits or other incentives*. There is a 30 percent federal tax credit available through 2019, on the total cost of the solar system, but only if you own the system. (The federal credit drops to 26 percent for 2020, and 22 percent for 2021) Other state and local incentives may be available, as well as programs from your local utility. Many can be found on the Database of State Incentives for Renewable Energy (see *Additional Resources*, below).
- *Understand any potential tax implications of credits or incentives*. Remember, only a CPA can give tax advice and only an attorney can give legal advice. When consulting such professionals, choose ones who are experienced with solar.
- *Understand Renewable Energy Certificates (RECs)*. RECs or "Green Tags" are tradeable tags representing the renewable qualities of the electricity your solar system generates. RECs were created to encourage and expand the overall growth of renewable energy. In some states, if you own RECs, you can claim you use "green" or "solar" power. Selling or transferring your RECs can help lower the cost of your system, but you may lose the ability to make "green" or similar claims when marketing your home. It's a complicated topic and solar companies should explain RECs and REC ownership to you if they apply in your state.

UNDERSTAND THE AGREEMENT

- *Understand the terms*. Contracts are legally binding and should be read carefully. Make sure you understand what you are receiving from the solar company and how much you are paying for it. Remember: make sure terms that are important to you are included in the official signed contract documents.
- *Don't hesitate to ask questions*. The best transactions are ones where the consumer and the contractor both fully understand the deal. Asking questions upfront can avoid misunderstandings later in the process. Below are some of the top questions that consumers ask when entering into a solar transaction.
- *Separate estimates from guarantees*. Many Americans can save money by choosing solar, but savings depend on the cost of the electricity from your solar system compared to cost of electricity from your utility. If a solar company promises savings, or states that electricity costs from your utility will increase in the future by a certain amount, ask them to explain. According to the U.S. Department of Energy, national residential electricity rates increased on average by 3.4 percent annually between 2004 and 2014. Rates in your area may have increased more or less, and may increase more or less going forward. Check with your utility or State utility regulatory office for any planned increases.
- Fully understand warranties. Like any other major residential product or service, a solar system typically includes warranties covering parts and labor. There may be separate warranties for major system components, as well as how the system interacts with your roof and its warranty. Ask your solar company to explain what your warranties protect, for how long, and who stands behind them.

Key Questions to Ask Before Entering into an Agreement

For all solar systems:

- What is the total cost of the solar system?
- What is your timeline for this investment? Do you want a short term arrangement or a long-term asset?
- How much do I pay up front, and how much over time, for how long?
- What is the system size?
- How much electricity will the system generate each year? Do you guarantee a minimum amount (a production guarantee)?
- Do system output calculations consider actual installation details of the system?
- Can I expect to save money with this system? If so, how much? Based on what assumptions?
- Is the installation company licensed and insured?
- What will the system look like once installed? Will I receive a system design for my review and approval before installation?
- Will I be required to make any changes to my home (e.g., roofing upgrades)?
- Are there separate warranties for parts and labor?
- What do the warranties cover and what are their durations?
- What type of maintenance or cleaning is required? Are any maintenance services included?
- Who should I contact if I have a question about the system following the installation?
- In many states, laws prevent homeowner associations (HOAs) from restricting rights to install a solar system. What are the rules in my state and can you help me work with my HOA?
- Does your company follow the *SEIA Solar Business Code*? Do you agree to abide by SEIA's Complaint Resolution Process?

For leases and PPAs only:

- Do you use the *SEIA Residential Lease Disclosure Form?*
- What is the length of the lease or PPA?
- Who receives solar tax incentives and how are they factored into the cost?
- Will my payments increase over time? How does the rate of increase compare to the expected/historic utility rate increases?
- What happens if I wish to end the lease or PPA early?
- Can I purchase the system, either during the agreement or once it ends?
- What are my options when I sell my home?
- Am I free to sell my home or do I need the system owner's permission?
- Are there fees to transfer the PPA or lease agreement to the new homeowner?
- Do I have to pay off the lease when my home is sold?
- Who is responsible for repairs and maintenance on the system?
- Do RECs apply to my transaction? If so, can you explain how RECs work in my situation?
- If I want to sell my home and don't own the RECs, how can I describe my home to potential buyers?

Working Out Differences

As with any other service or product, consumers may encounter issues in dealing with a solar company. In general, solar companies want satisfied customers and are willing to resolve any problems that arise. SEIA and the solar industry are strongly committed to consumer satisfaction and protection.

- First, try to resolve problems directly with your solar company.
- Your contract or lease may have a dispute resolution section and process.
- If you choose a SEIA solar company to work with, SEIA may be able to assist you in resolving your issue.
- If you are still having issues, note that SEIA member companies are bound by the *SEIA Solar Business Code*. If you believe a company has violated the *SEIA Solar Business Code*, you may submit a complaint to SEIA, which can help resolve certain issues.
- You can contact private consumer organizations (e.g., your local Better Business Bureau) about your issue.
- In addition, state and local governments have resources to promote consumer protection. See below for more information.

Additional Resources

- SEIA Consumer Protection Portal – www.seia.org/consumers
- Official SEIA State Chapters – www.seia.org/about/seia/official-state-chapters
- Better Business Bureau (BBB) – www.bbb.org
- Database of State Incentives for Renewable Energy (DSIRE) – www.dsireusa.org
- Interstate Renewable Energy Council – www.irecusa.org
- National Renewable Energy Laboratory (NREL) – www.nrel.gov
- U.S. Department of Energy (DOE) – www.energy.gov
- Your state or local consumer agency– www.usa.gov/directory/stateconsumer/
- Your state attorney general – www.naag.org

Email SEIA with any questions at consumer@seia.org