

Residential Solar Energy Consumer Protection

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1. Introduction

A few months ago, I completed my own rooftop solar energy project. Since I worked as an application engineer for a number of large electric-utility vendors (most notably Siemens and Landis & Gyr), I was familiar with the proposal process, including the stage where the buyer (me) prequalifies the potential bidders. Because of this I ended up with a reputable vendor for my project, and all went as planned. While this was being implemented, I wrote the three-part series summarized and linked below.

Rooftop Solar Energy Tug of War, Part 5, Real World Project: This paper contains:

- Brief explanation of likely California solar (plus storage) tariff going forward.
- Sample Specification with clarifications
- Brief comments on bidding process
- Management issues to focus on during proposal cycle:
 - Fairness
 - Few bidders
 - Prequalification

<https://energycentral.com/c/cp/rooftop-solar-energy-tug-war-part-5-real-world-project>

Rooftop Solar Energy Tug of War, Part 6, Selection, Survey & Design: This paper focuses on the project phases between and including the contractor selection, the site survey and the creation and approval of the design.

<https://energycentral.com/c/cp/rooftop-solar-energy-tug-war-part-6-selection-survey-design>

Rooftop Solar Energy Tug of War, Part 7, implementation and results: This paper is the final episode in this very long series on residential solar energy projects in California, and this part, the prior parts 5 and 6 are specifically about my project.

<https://energycentral.com/c/cp/rooftop-solar-energy-tug-war-part-7-implementation-and-results>

Recently, I found other resources for potential residential solar energy clients in an article from PV Magazine.¹

I drilled though Reference 1 to the three federal agencies mentioned therein, and found some useful information. Below I devote a section to each agency with links to their resources. After that there is a section on California consumer protection resources, since that is my home state, and my state generates more solar power than any other state (end of Q1, 2024, 48,482 MW, enough to power 14,572,290 homes).

¹ Anne Fischer, PV Magazine, "U.S. government announces resources to protect solar customers," Aug 8, 2024, [https://pv-magazine-usa.com/2024/08/08/u-s-government-announces-resources-to-protect-solar-customers/?utm_source=USA+%7C+Newsletter&utm_campaign=56007a4b58-dailynl_us&utm_medium=email&utm_term=0_80e0d17bb8-56007a4b58-159946110&ct=t\(dailynl_us\)](https://pv-magazine-usa.com/2024/08/08/u-s-government-announces-resources-to-protect-solar-customers/?utm_source=USA+%7C+Newsletter&utm_campaign=56007a4b58-dailynl_us&utm_medium=email&utm_term=0_80e0d17bb8-56007a4b58-159946110&ct=t(dailynl_us))

2. Consumer Financial Protection Bureau (CFPB)

The market for residential solar panels continues to grow, in large part due to declining solar panel costs and increased government incentives, including tax credits. With that growth, the marketing and door-to-door sales of solar-related financial products have become more prevalent.²

This Issue Spotlight provides an overview of the most common solar financing business models. Due to the size of the marketplace and the scope of potential consumer harm, this spotlight pays specific attention to risks stemming from the presentation and structure of “solar-specific” loans, which are often facilitated by large financial technology (“fintech”) firms via a point-of-sale partnership with solar installers.

Author’s comment: Reference 2 starts out with the most important items – short consumer warnings, and then drills into:

- The Power Solar Market, with focuses on the residential sub-market, factors influencing this market, and details on the solar financing models.
- Community Solar Projects: *This term applies to any agreement between an individual and a third party to finance a large-scale solar project (often called a “solar farm”) situated away from the consumer’s home.*
- Finally, the reference does a really deep dive into potential risks.

Reference 2 has a really good and short conclusion, which I’ve repeated below

Homeowners have the potential to generate substantial savings by making improvements to their home that generate clean energy and increase energy efficiency. However, these investments require upfront costs that many families must finance.

The CFPB has been working to ensure that costly financing for clean energy does not wipe away expected energy savings or expose the family to serious financial risks. Last year, the CFPB put forth proposed rules regarding property assessed clean energy (PACE) loans, which increase the cost of monthly tax assessments as a way to finance clean energy improvements.

As solar energy installations continue to grow in popularity, the agency will be working closely with federal and state regulators and law enforcement to ensure that the financing of solar energy installations is fair, transparent, and competitive.

3. U.S Department of the Treasury

Treasury has a reasonable site with many secondary links. This is referenced here.³

Near the bottom of the Reference 3 page is a list of PDF Guides. I decided to drill through to these and have provided brief summaries below.

² CFPB Office of Markets, “Issue spotlight, Solar Financing,” Aug 07, 2024, <https://www.consumerfinance.gov/data-research/research-reports/issue-spotlight-solar-financing/>

³ U.S Department of the Treasury, Consumer Solar Awareness, <https://home.treasury.gov/policy-issues/consumer-policy/consumer-solar-awareness>

3.1. Solar Consumer Advisory

This four-page Guide starts by information and links advising consumers what to do if they think they have been scammed. It then goes into several categories of general information on consumer solar projects, and then ends with advice about how to avoid scams.

3.2. Before You Buy Solar Panels

This two-page guide starts with information on buying and financing solar panels, and has a brief section on “*How to Spot Scams and Bad Business Practices.*” Page 2 is a continuation of the subjects on page 1, but also has a section on a type of purchase called “*Residential Property Assessed Clean Energy (R-PACE OR PACE) Loans.*”

3.3. Before You Sign a Solar Lease Agreement

This two-page guide basically explains solar leasing.

3.4. Before You Sign a Community Solar Subscription Contract

This basically explains how community solar subscriptions work, and related cautionary information.

4. Federal Trade Commission

It took some digging to find the page that seemed to target the residential solar energy system buyer, and also was reasonably current (2022). But I finally found it, and it is referenced here.⁴

The bad news with this page is that it covers the same ground as the other two agencies’ web pages. The good news is that it is well-written, probably has some additional information, may be better-organized and more crisply-written.

5. State of California Resources

Readers that are, like your author, residents of California will be interested in the sites below.

5.1. PACE (Property Assessed Clean Energy): What Homeowners Need to Know

*PACE programs provide a unique type of financing that allows homeowners to finance energy efficient, water saving and other environmentally beneficial improvements through their property taxes. But financing home improvements through PACE programs can involve risks.*⁵

⁴ Federal Trade Commission – Consumer Advice, “Solar Power for Your Home,” 2022, <https://consumer.ftc.gov/articles/solar-power-your-home>

⁵ State of California, Department of Financial Protection and Innovation, July 5, 2023, <https://dfpi.ca.gov/pace-program-administrators/pace/>

Some salespeople and building contractors have in the past misrepresented the cost of PACE projects and the financing, claiming no money down or out-of-pocket-costs are required and giving the impression these services are free. PACE is NOT a free government program. Homeowners must pay for a PACE contract through increased assessments in their annual property tax bills. As such, PACE assessments can also make it more difficult to sell or refinance a property because a lien is placed on your home until the PACE contract is paid off...

5.2. Enrolled PACE Solicitors Search

<https://dfpi.ca.gov/pace-program-administrators/pace-solicitor-search/>

5.3. California Solar Consumer Protection Guide

This is a well-written and organized 23-page long guide. It is also full of links to other documents. I'll let this guide provide its own intro.

This guide is from the California Public Utilities Commission (CPUC), a government agency that regulates privately-owned utilities like Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E).⁶

Customers of PG&E, SCE, SDG&E, BVES, and PacifiCorp must initial and sign this guide to connect a residential solar system to the electric grid. The CPUC requires these companies to collect your signed copy of this guide to ensure that you know your rights and have enough information to make a decision. (This requirement does not apply to solar thermal systems or solar systems in new home construction or multi-family buildings.)

Now that I think about it, I remember performing the actions described in the above paragraph before my PV + Storage project started. I've copied the table of contents below (I've deleted the page numbers).

Watch Out for False Claims

Know Your Rights

Ask Solar Providers These Initial Questions Before You Sign A Contract⁴

STEP 1: Is Solar a Good Fit for Me?

STEP 2: Understand Roles and the Solar Process

STEP 3: Find a Qualified Solar Provider

STEP 4: Compare Your Financing Options

STEP 5: Learn About Electricity Bill Savings

STEP 6: Carefully Read All Paperwork

STEP 7: Review Additional Resources

STEP 8: "Before You Sign" Checklist

STEP 9: Sign This Guide

⁶ CPUC, "California Solar Consumer Protection Guide," March 2022, https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/solar-guide/solarguide22_011922.pdf