

Due Diligence BEFORE Buying a Residential Solar Photovoltaic System Will Avoid Unintended Consequences

A typical request I receive is to assist the property owner in convincing their real estate agent, appraiser, or potential buyer that the solar photovoltaic system has added value. A recent request went something like this, "I installed a solar PV system last year at a cost exceeding \$30,000 and secured a solar loan to pay for it. I am now trying to sell my property and having a hard time finding a buyer that will buy my property and assume the solar loan. I need for you to do an appraisal on my property to show the value of the solar system."

The following request should have been made before they purchased a solar PV system: "I'd like to hire you to review the three solar PV proposals for purchase and provide me with the feasibility of the purchase, unintended consequences of installing the system, and an opinion as to if it will add value to my real estate."

It is not unusual for the solar PV proposals to avoid giving the system size, manufacturer, type of inverter(s), and warranty terms. Why aren't the specifications of what they are buying in the proposal? I have heard from the salespeople they do not want the homeowner shopping the price. How wise is it for a property owner to now shop prices?

The financing they may offer are often not explained in its entirety to allow the property owner to understand how the solar loan may affect the property value upon a resale or even a refinance. Because this system is new to the market, homeowners are not aware of questions they should be asking. This is an exceptionally good reason homeowners need to pay a knowledgeable consultant outside the solar industry to help them make better decisions. It might cost a few hundred dollars to have a knowledgeable appraiser assist you in reviewing the solar costs, analyze the financial feasibility, and develop a value opinion of the system. Which would you rather do, pay a professional a few hundred or lose several thousand dollars and possibly create roadblocks to resale or refinance?

The solar loan is typically secured by the solar PV system; therefore, there is no appraisal required because when the lending source makes the loan, they may file a Uniform Commercial Code (UCC) filing with the clerk to identify the system as "personal property" and not a fixture and not part of the real estate. This is the part that homeowners do not understand, and the sales agent may not know or explain. Most homeowners report the solar sales agent never told them nor did they read the fine print before they signed the loan document.

- So, what happens when they must sell the home and the only way they can do this is to pay off the loan to include the solar PV in the real estate value?
- What happens when the solar loan payoff plus the current mortgage exceeds the value of the property?

Now you can begin to see why it is important for lenders, solar folks, and agents to suggest the homeowner hire a consultant that understands residential solar PV and pay them to help them make wise decisions.

Solar loans are usually at higher interest rates than those offered for a mortgage on the real estate. Few lenders offer the mortgage products that would allow the homeowners to use products that are less costly than solar loans. In Florida it is not unusual to see solar advertisements of no money down and no monthly payments. Sounds good but you know what they say about if it sounds too good to be true, watch out.

When you secure the details you find they are referencing a Property Assessed Clean Energy (PACE) loan that is paid back through the real estate tax and it is found under the non advalorem section of the real estate tax bill. The PACE loan goes with the real estate and it takes 1st lien position that will create problems for the homeowner that wants to refinance using a Fannie Mae or Freddie Mac loan. The PACE loan does not have a firewall that alerts the owner that the loan plus their mortgage exceeds their property value. Do you see the problem now? If the real estate agent does not disclose the PACE loan on the property and they have an offer to purchase, the title company may discover the UCC or PACE just days before closing. If the PACE loan is not discovered or disclosed until after the new buyer has taken title, the buyer may have reason to file a suit against all involved in the transaction.

I have spent years studying solar and speaking on the topic around the country. I am not averse to solar PV and find that it works well and is feasible in some areas. It is not a financially feasible purchase in all areas and the biggest problem is homeowner's lack of due diligence to make wise decisions. For instance, I often find the homeowner purchased a system larger than they needed and they send excess energy to the grid. Sometimes the utility company allows net metering that pays them something for the excess energy but not always. So, they have overpaid for a system they did not really need. I use a software called [PV Value®](#) to estimate the production or establish a wattage needed to produce the energy at that location and develop a value conclusion using the cost and income approaches. This software is designed to be used by appraisers/consultants with knowledge of solar and should not be used if you do not understand discounted cash flows. However, the best data is sales data and solar trends in the local market. Not all markets have enough solar home sales to develop value using the sales comparison approach. That doesn't mean there is no value but it requires the appraiser to develop appropriate trends by reviewing the number of installs in the market, interviewing real estate agents in the market, and speaking with homeowners that did install the systems to gain an understanding of the market's attitude toward solar. Not every appraiser is equipped to develop the value of a solar PV system. I am not equipped to develop the value for every property type. Appraisers specialize in property types and the homeowner should find the qualified person in their market.

Upon a sale of a house with solar PV, the solar characteristics and benefits are usually not visible in the marketing through the multiple listings service (MLS). The agent may not document the solar PV details by using the [Appraisal Institute Residential Green and Energy Efficient Addendum](#) and attaching it to the MLS upon listing the property. The AIRGEEA is a resource anyone can use, and it has gained popularity in the market. The solar page from the Addendum has all the specifics the appraiser needs to value the system if they have solar knowledge. Appraisers have difficulty in finding sales or listings of properties with solar because of the inadequate listing practices and limited searchable fields to find solar homes. When we do find solar home sales the size and age of the system is rarely made available. The size and age of the system is extremely important on the property appraised and on all the comparable sales used in establishing a value of the property. Fannie Mae, Freddie Mac, and FHA require lenders to hire appraisers with requisite knowledge but that does not happen often, and it is not monitored until a market crash occurs or the house goes into foreclosure.

The largest financial purchase many will ever make is the purchase of their home. What you do to the home once you purchase it can materially affect the value, marketing, resale, and refinancing. Seek professional advice to make better decisions. Solar PV is financially feasible in some markets if you perform the due diligence and hire an expert to help you make the right decision.