

# CMLS Green Sheet: Solar Power Fields

The market for solar-powered homes, known as photovoltaic (PV) homes, hit its stride in 2016. These homes employ new technology that use the power of the sun to generate electricity.

They are different from passive solar homes, which use architectural design to cool homes during daytime heat and retain warmth for chilly evenings. They are also different from homes with individual solar appliances such as water heaters and pool pumps.

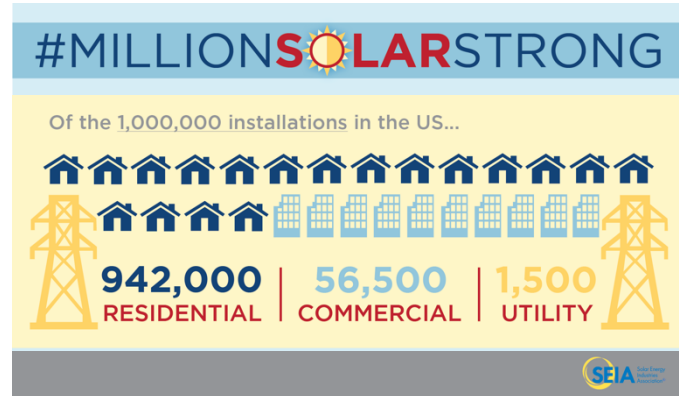


Figure 1 - Source: Solar Energy Industry Association. May 3, 2016.

In 2016, this market segment achieved an important milestone with the one millionth installation of a PV system. Out of the first one million PV systems, nearly 950,000 were residential installations. Today, almost 1.4 million American homes feature PV systems, with continued growth fueled by energy cost savings and increasing affordability of solar systems.



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Strong solar markets in California, Massachusetts, Connecticut, and Colorado have found that PV home transactions require extra attention to ensure a smooth closing. Such systems may add to the value of a home at the time of sale.

The multiple listing service (MLS) industry introduced standard power production fields to represent PV homes, effective with the release of the Real Estate Standards Organization's (RESO) Data Dictionary version 1.5 in July, 2016. These fields in the RESO standard address key factors such as inputs for home valuation and title of the system.

Given the importance of this information to help a transaction flow smoothly, MLSs and other stakeholders in the real estate industry need to be proactive in implementing these fields.

This Green Sheet, published by the CMLS Green MLS Section Council, serves as a primer to educate the real estate industry on power production fields. This document was published in partnership with Lawrence Berkeley National Laboratory with support from the U.S. Department of Energy's SunShot Initiative.



When new features grow in the market, there are always many questions. The CMLS Green MLS Section Council has answered some of these questions in order to provide the MLS industry with a better understanding of power production fields.

## How might solar power production fields influence transactions?

Emerging solar markets are identifying two types of information critical during the sale of a PV home.

### ***How is ownership/title set up for the PV system?***

- Is the system owned by a seller or third-party?
- Is the system financed through a property-assessed clean energy (PACE) lease or power purchase agreement?
- Is there a lien against the property based on the financing?

### ***What features might influence the system's value?***

- What is the capacity (also known as size) of the system? This gives an indication of how much energy the system will produce under perfect conditions.
- How much power is the system expected to actually produce in an average year? This takes into account: system size, home location, roof tilt, and shading.
- How old is the system? This indicates how much useful life might remain.



## How does the RESO Data Dictionary define power production fields?

The RESO Data Dictionary includes a full set of fields that can be implemented to describe PV systems on a listing in an MLS.

The fields and full definitions as well as lookup values can be found quickly on the RESO Wiki page in a group called “[Property Power Production Collection](#).” MLS technical teams and software vendors can use the specifications defined on the Wiki pages to implement fields according to RESO standards. If an MLS is owned by a local board of REALTORS® and chooses to offer the PV fields, they must comply with the standard no later than Jan. 1, 2018, or at any implementation date thereafter.

## What about other types of power production like wind energy?

As a bonus, the RESO [Property Power Production Collection](#) can be implemented to describe wind systems as the market for wind generation catches up with PV.

## What are the fields and lookup values related to power production?

The following fields are included in the RESO Data Dictionary 1.6 Wiki. Power production fields should be addressed in four steps (see right).

### Power Production In Four Steps

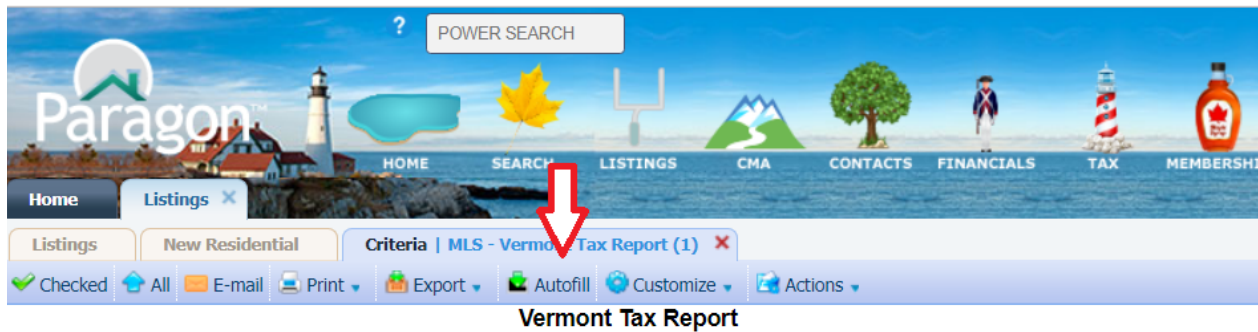
1. Specify type of power production for which fields are being implemented:  
[PowerProductionType \(PropertyPowerProduction\) Field](#)
  - [Photovoltaics](#) and/or
  - [Wind](#)
2. Implement the fields that describe the system (valuation characteristics):  
[PowerProductionAnnual Field](#)  
[PowerProductionAnnualStatus Field](#)
  - [Actual](#)
  - [Estimated](#)
  - [Partially Estimated](#)[PowerProductionSize Field](#)  
[PowerProductionYearInstall Field](#)
3. Implement the fields that describe ownership of the system (real property or personal property characteristics):  
[Electric](#)
  - [Photovoltaics Seller Owned](#)
  - [Photovoltaics Third-Party Owned](#)
  - [Pre-Wired for Renewables](#)
  - [Ready for Renewables](#)[CurrentFinancing Field](#)
  - [Leased Renewables](#)
  - [Power Purchase Agreement](#)
  - [Property-Assessed Clean Energy](#)
4. Align implementation of selected fields with input forms, listing maintenance, property reports and IDX/VOW feeds.



## What is the future of power production data in the MLS?

PV data is often recorded by a trusted third party and has the potential to be automatically matched to a home sale listing, a process known in the MLS industry as auto-population or “auto-pop.” MLSs that implement PV fields could set up the opportunity to auto-pop PV data. In addition to the fields described, an MLS could also implement a field to identify the source of the auto-pop information (see [Green Verification Source](#) field).

The first prototype of PV auto-pop is underway in Vermont via the New England Real Estate Network that operates the NEREN® MLS. NEREN has access to PV system details such as the size of the system off a public record known as a Certificate of Public Good. NEREN’s tax data vendor, CRS Data, downloads the records from the Vermont Energy Atlas website and matches these records to property records. Matching records auto-pop for the listing agent to review during the existing tax report auto-fill process.



Tax & Legal Info			
Tax Id	(163) HV1635	Annual Tax	0
Tax Year	0	Total Assessment	409600
Assessment Year	2015	Legal Description	DWEL
Zoning			
Address Info			
Address		Condo Unit #	
City		State	VT
Zip Code		Zip Plus 4	
County	Chittenden	Subdivision	
Property Characteristics			
Full Baths		Half Baths	
Baths		Bedrooms	
Fireplaces		Stories	
Building SqFt	0	Year Built	0
Lot Size		Lot SqFt	457380
Acreage	10.50	Number of Buildings	0
Number of Units			
Power Production			
Mount Location	Ground	Mount Type	Tracker
Power Production Size	4.20	Power Production Annual	5816
Power Production Year	2010	Power Production	Public Records
Install		Verification Source	
Power Production Type	Photovoltaics		



## What role will CMLS play in shaping power production data on MLS listings?

The CMLS Green MLS Section Council is currently seeking input from CMLS members on success stories about user training and communication activities for PV-related fields, and auto-pop, IDX and syndication strategies.

CMLS members may send opinions or request technical support to the attention of the Green MLS Section Council at [info@councilofmls.org](mailto:info@councilofmls.org).

## Where can I go for additional information?

For additional information about the topic of auto-pop of PV data, see [Capturing the Sun: A Roadmap for Navigating Data-Access Challenges and Auto-Populating Solar Home Sale Listings](#). For info on solar system value in real estate transactions, see [Selling Into the Sun: Price Premium Analysis of a Multi-State Dataset of Solar Homes](#). Both are published by the Lawrence Berkeley National Laboratory.

## Notes:

