



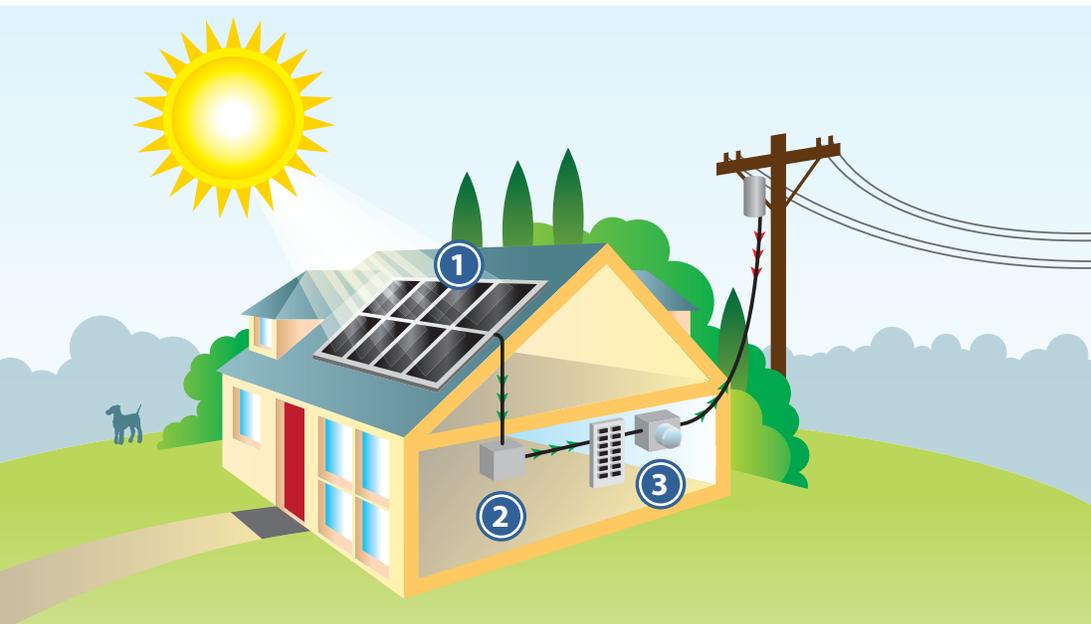
# SOLAR FACT SHEET FOR HOMEOWNERS

## SOLAR MAKES SENSE

Solar photovoltaic (PV) systems capture sunlight and convert it into electricity useful for everything that traditional energy sources power, from lights and appliances to electric cars. Since 2007, Californians have installed more than 1.5 gigawatts of solar PV generation, and many of your friends, neighbors and relatives are tapping into the state's most abundant natural resource – the sun – for their power.

## BENEFITS OF SOLAR FOR YOUR HOME

- Save on your monthly electricity bill
- Reduce exposure to rising energy costs
- Rest easy with low maintenance
- Generate clean, renewable power
- Gain energy independence
- Set an example for future generations



## HOW DOES SOLAR WORK?

1. Photovoltaic (PV) systems collect solar energy and convert it to direct current (DC) electricity.
2. The DC electricity flows to an inverter that converts it into alternating current (AC) for household use.
3. Your utility meter records the amount of energy generated by the PV system. When the system generates more electricity than you are using, the excess electricity goes to the utility grid resulting in a credit to your account. This credit helps offset the cost of your utility electricity usage at night or on cloudy days when your PV system is not producing energy.



## “GOING SOLAR” MADE SIMPLE

### 1. Energy efficiency first

Making your home energy efficient before you “Go Solar” may dramatically lower the up-front costs of your PV system. Keep in mind that California provides rebates for many energy efficiency upgrades such as insulation and duct sealing. Visit the Energy Upgrade California® website for more information: [www.energyupgradeca.org](http://www.energyupgradeca.org).

### 2. Find a contractor

Licensed contractors are your key to getting the most appropriate solar system for your budget and unique needs. They typically provide free site evaluations as well as comprehensive quotes and payback information. Make sure to compare at least three bids before selecting a contractor.

### 3. Sign a contract

Any work valued over \$500 requires a contract per the California State License Board (CSLB). In the contract, be sure to specify the start and completion dates of the job and insist on a progressive payment schedule specifying exact costs. Be sure to require that all change orders must be in writing.

### 4. Install your system

Your licensed solar contractor will design and install a system sized appropriately for your home and work with the City Building Department and your utility company to interconnect to the grid.

# FINANCING OPTIONS

There are four principal financing options available for PV systems.

## *Purchasing a system*

- **Home Equity Loan**

Homeowners can use the equity in their home as collateral to take out a bank loan. A home equity loan is a one-time, lump-sum loan often with a fixed interest rate.

- **Property Assessed Clean Energy (PACE) Loan**

Available for both PV systems and energy efficiency upgrades, PACE loans allow homeowners to finance up to 100% of their project, with little or no up-front costs, and pay it back over time as a voluntary assessment on their existing property tax bill.

## *Third party-owned system*

- **Lease**

With a leased system, homeowners can take advantage of little or no money down and can be cash positive in the first year. The leasing company will own the system, while the homeowner pays a fixed monthly fee. Leases typically come with a 20-year term and may include a purchase option at the end.

- **Power Purchase Agreement (PPA)**

With a power purchase agreement (PPA) homeowners pay per kilowatt-hour (kWh) the system produces. The kWh rate is lower than what the local utility charges, so homeowners can begin saving within the first year. It is important to remember that the homeowner pays for what the PV system produces, not what the homeowner consumes.



## 30% FEDERAL TAX CREDIT

Interconnect your solar system before December 31, 2016, and you may claim a 30% federal tax credit to help make the cost of going solar more affordable. The credit applies to the total system cost including equipment and installation and may be carried forward if not exhausted in the installation tax year. For questions, speak with a tax professional.

## NET ENERGY METERING (NEM): GET THE CREDIT YOU DESERVE

NEM is a special billing arrangement that allows Aliso Viejo residents to receive credit for the full retail value of the electricity a solar system exports to the utility. A special net meter keeps track of your electricity generation and consumption. Over a 12-month period, you pay for the net amount of electricity consumed, less any generation export credit you have accrued – saving you money.

## PASSIVE SOLAR

Daytime interior lighting costs can be significantly reduced with the use of properly designed and located skylights, also known as “passive solar”. Skylights can be easily installed in existing homes and may substantially reduce electricity costs and unnecessary energy consumption.

## WANT TO LEARN MORE?

For more information about solar PV, visit the Center for Sustainable Energy (CSE) website at [www.energycenter.org/avsolar](http://www.energycenter.org/avsolar) or speak with a CSE solar energy expert at 858-244-1177.

For more information about building permits for solar PV, visit the Building and Safety's webpage at the City of Aliso Viejo's website at [www.cityofaliso Viejo.com](http://www.cityofaliso Viejo.com) or speak with a staff member at 949-425-2540.



CSE is a 501(c)(3) nonprofit that accelerates the transition to a sustainable world powered by clean energy and implements programs that help consumers, businesses, governments and others adopt energy efficiency, renewable energy and clean transportation.