

Solar Energy in Madera

Energy from the sun is abundant on earth and it is becoming increasingly affordable to harness this clean and renewable energy source in order to generate electricity and heat water for use in our homes and buildings. Through innovative new financing options, homeowners and businesses can now go solar for \$0 down and start saving money from day 1. In addition to lowering electricity bills, going solar offers economic development, environmental and health benefits to the community.

This webpage provides essential resources for residential and commercial property owners that are considering an investment in solar, as well as specific requirements and resources for solar installers and other industry professionals, such as real estate agents, appraisers and financial analysts. Lastly, Madera is participating in the Southwest Solar Transformation Initiative and a link to the City's customized Solar Roadmap can be found below.

SOLAR FOR RESIDENTS & BUSINESSES

Below are a few selected resources available to residential and commercial property owners that are considering an investment in solar energy. Access a more extensive resource library, searchable by topic and keyword, at www.solarroadmap.com/resources/.

Informing Your Decision

- **Consumer Guide:** "Get Your Power From the Sun" offers a high-level overview of key considerations for home and business owners that are interested in going solar. www.nrel.gov/docs/fy04osti/35297.pdf
- **Solar PV Decision-Making Guide:** This guide provides fundamental information to understand as you decide whether or not to install a solar electric system at your home or business. www.cityofmadison.com/sustainability/city/madisun/documents/SolarPVGuide.pdf

Evaluating Your Solar Potential

- **IMBY:** This tool estimates the amount of electricity you can produce with a solar photovoltaic (PV) array at your home or business using an interactive map-based interface. Available at <http://www.nrel.gov/eis/imby/>.
- **PV Value:** This tool is intended to help determine the value of a new or existing solar PV system installed on residential and commercial properties. Available at http://energy.sandia.gov/?page_id=8047.

Financing a Solar Energy System

- **Financing Guide:** "Homeowners Guide to Financing a Grid-Connected Solar Electric System" is an essential resource that provides an overview of the different options available for financing a solar energy system. Available at www1.eere.energy.gov/solar/pdfs/48969.pdf.
- **Current Incentives:**
 - **30% Federal Tax Credit.** 30% of qualified expenditures for solar energy system may be claimed as a residential or business tax credit. www.dsireusa.org/incentives/index.cfm?state=us
 - **California Solar Initiative (CSI).** The CSI offers cash rebates for installing solar power systems installed on homes, businesses, farms, schools, and government and non-profit organizations for customers at one of California's three investor-owned utilities. www.gosolarcalifornia.ca.gov/csi/index.php
- **Local Financing Options:**
 - **California Energy Commission (CEC) Energy Conservation Assistance Act Low Interest Loans.** The CEC developed a 1% interest loan program for public entities in California to implement energy efficiency and renewable energy projects. www.energy.ca.gov/contracts/PON-11-610/PON-11-610_Application_Manual.pdf
 - **Figtree Property Assessed Clean Energy Program (PACE).** PACE programs allow local government entities to offer clean energy project loans to eligible property owners, along with the ability to repay the loan on their property tax bill over an extended term. Figtree PACE financing is currently made available in Madera, and other areas. www.figtreecompany.com/commercial-pace-areas/

- **Educational Employees Credit Union (EECU) Energy Efficiency Loan.** Members of the EECU can take out an energy efficiency loan between \$100 and \$4,000 to install solar systems and increase energy efficiency. www.myeecu.org/home/loans-credit-cards/personal/energyloan
- **PowerSaver Loans.** The PowerSaver Loan Program offers eligible homeowners competitive interest rate loans for up to 20 years for renewable energy projects. https://energyupgradeca.org/news/finance_your_upgrade_with_powersaver-332
- **Additional Incentives & Financing Information:**
 - The **San Joaquin Valley SSTI Regional webpage** on the Solar Roadmap website has a comprehensive list of financing program information in the valley. www.solarroadmap.com/regional/san-joaquin-valley-ca
 - **Database of State Incentives for Renewables & Efficiency (DSIRE)** provides up-to-date information on the multitude of clean energy incentives across the country. www.dsireusa.org

SOLAR FOR INSTALLERS & INDUSTRY PROFESSIONALS

Madera has simplified its process for obtaining necessary permits to install solar energy systems. Specific requirements related to permitting, planning, zoning, and interconnection are outlined below, as well as additional resources for industry professionals such as real estate agents, appraisers and financial analysts.

Permitting and Inspection

- **Submittal Requirements for New Residential Solar Photovoltaic Systems:** The City of Madera has general building permitting requirements outlined on its website: <http://www.cityofmadera.org/web/guest/building-documents>.

Utility

- **Pacific Gas and Electric Solar PV Net Metering and Interconnection:** information is available online at <http://www.pge.com/b2b/newgenerator/netenergymetering/>.

Additional Resources

- **New Construction:** “A Homebuilder’s Guide to Going Solar” offers insightful considerations for solar in new home construction. Available at www1.eere.energy.gov/solar/pdfs/44792.pdf
- **PV Value Tool:** This professional tool is intended to help determine the value of a new or existing solar PV system installed on residential and commercial properties. This tool is especially useful for real estate appraisers, mortgage underwriters, credit analysts, real property assessors, insurance claims adjusters and PV industry sales staff. Available at http://energy.sandia.gov/?page_id=8047
- **Open PV:** This collaborative effort has delivered a comprehensive database of solar PV installation data in the United States to provide an evolving, up-to-date snapshot of the US solar power market. Available at <https://openpv.nrel.gov/about>.

SOUTHWEST SOLAR TRANSFORMATION INITIATIVE

Madera is participating in the Southwest Solar Transformation Initiative (SSTI) – an initiative funded by the US Department of Energy’s Rooftop Solar Challenge program. The initiative aims to make solar power more affordable for communities across the country by improving approval processes and local solar market conditions.

Through this initiative, the SSTI team has created a customized solar roadmap for Madera with detailed steps that the City can take to achieve its clean energy goals. Find more resources at www.solarroadmap.com.