




Advanced Solar Renewable Energy

The Owner's Guide





Residents who have already installed solar PV systems cite many different reasons for going solar, including:

Electricity cost savings and price stability;

Increase home resale value;

Concern about pollution, the environment, and climate change;

Desire for energy independence and increased control over energy choices;

Solar PV is hip, cool and green.



WARRANTIES of INSTALLATION

A Specialized Solar Provider You Can Trust – Eco-Estates specializes in residential and commercial solar electric installations and its employees have many years of combined experience with solar and electric services. All installations are done by our experienced, local, licensed, and insured installers.

World Class Customer Service - Dedicated to 100% satisfaction on installation and delivery and post installation follow-up. Committed to measuring and delivering the highest customer satisfaction ratings

If any issues come up that relate to the integrity of the installation we performed, we will fix it at no cost to you.

We're committed to making sure your system is operating correctly. We offer a FREE check up and cleaning of your system after 1 year. Contact solar@ecoestates.us at the 1 year anniversary for an appointment.

Solar adopters of today are seeing a zero change in monthly energy expenses by taking advantage of current market conditions.



Solar adopters of today are seeing a zero change in monthly energy expenses by taking advantage of current market conditions. Because there are no moving parts, solar panels require little to no maintenance. With warranties that last 25 years and guaranteed at least 90% efficiency rating, you can rest assured that you are making a good investment.

WARRANTIES

We work with a range of solar manufacturers who engineer, design and produce outstanding solar panels that are tried and tested in the field. The solar panels (photovoltaic “PV” modules) we recommend come with excellent manufacturer warranties, and are built to last. Solar panels produce 25+ years of electricity consistently and reliably without the need for constant maintenance or effort on the part of the owner.

Our solar PV modules have a high photoelectric conversion efficiency and reliability. They use advanced diffusion technology, and ensure the uniformity of its cell’s efficiency and good electrical conductivity. The power output warranty guarantees the PV modules are producing at a stated minimum of 80% at year 25. The PV modules have a 25 year performance guarantee and 10 year material and workmanship guarantee from the manufacturer.

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There are two types of inverters – string inverter and micro-inverter. String inverters have dominated the solar industry since its inception. The introduction of micro-inverters marks one of the biggest technology shifts in the PV industry to date. Manufacturers are touting 5-25% increase in power output, which in the long run can bring in a lot in savings for many homeowners.

WARRANTIES

String inverters have a standard 10 year parts warranty. If a unit malfunctions, our service representative will do an assessment test onsite with a specialist from the manufacturer on the phone. If the unit is deemed faulty and covered under warranty, a new inverter will be shipped from the manufacturer to our facility. EcoOne will then install the new unit and send the faulty unit back to the manufacturer. A service fee may or may not be charged for the replacement depending on whether the manufacturer covers the labor to service a warranty claim. It has been our experience that string inverter manufacturers do not cover the labor cost of a warranty claim.

A micro-inverter is built into each PV module and is covered under a 25 year parts warranty. The malfunction micro-inverter can be diagnosed remotely by the manufacturer.



Micro-inverters are not exposed to as high power and heat loads as string inverter, they also tend to last significantly longer. Micro-inverters typically come with a warranty of 20-25 years – 10-15 years longer than string inverters.

Eco-Estates will not need to make a trip until the new unit has arrived. The process for replacing a micro-inverter is far easier than replacing a string inverter.

Eco-Estates Residential solar systems come with a 10 years workmanship warranty. If any issues come up that relate to the integrity of the installation we performed. Eco-Estates will fix the issues at no cost to you.

HOMEOWNER INSURANCE POLICIES

Are solar panels durable? Yes. Solar panels are made with much stronger glass than you probably are picturing right now. Manufacturers are well-aware these panels will go on the roofs of homes and businesses throughout the world—and in all different types of climates. They build their solar panels with that in mind, and the panels are remarkably strong. The proof of solar module durability is best demonstrated by the warranties. Many modules come with a 25-year performance warranty and a guarantee that 80% of the rated power of the module will still be available after 25 years. There are few other consumer or industrial devices carrying a similar warranty.

We, as solar installers, do want to say that we do not recommend anyone bathing/throwing parties/dancing/wrestling/laying on your solar panels.

“PV modules install in the USA have specification standard hail impact by a one inch ice ball traveling at a terminal velocity of fifty two (52) mph”
The Jet Propulsion Lab (JPL) in Pasadena, CA



Moreover, the value of a residential solar electric system can range from \$5,000 to \$100,000. This is a major investment, so be sure to check with your homeowners insurance company to find out what needs to be done to add your solar system to your policy. Some insurance companies may increase your policy premiums. However from our experience it is quite rare.



“When there’s a huge solar energy spill, it’s just called a ‘nice day’
” Vote Solar billboard, 2012

“The use of solar energy has not been opened up because the oil industry does not own the sun.” Ralph Nader


“I have no doubt that we will be successful in harnessing the sun’s energy. If sunbeams were weapons of war, we would have had solar energy centuries ago.” George Porter, Nobel Prize winner in Chemistry, 1967

“I’d put my money on the sun and solar energy. What a source of power! I hope we don’t have to wait until oil and coal run out before we tackle that.” Thomas Edison, 1931

“Texas has the potential to be a MASSIVE solar market. To put it into perspective, the sunshine that falls on Texas each month has more energy than all of the oil that has ever been pumped out of this state. If you think oil made Texas great, just wait till you see what they do with solar.” Rhone Resch, president and CEO of the Solar Energy Industries Association (SEIA), 2011

“It’s really kind of cool to have solar panels on your roof.” Bill Gates

“Build Eco-Estates’ Net Zero Energy homes – Good planets are hard to find” David Pham



IRS INCOME TAX CREDIT PROCESS

Tapping the sun for power just feels good -- solar power doesn't pollute, reduces our use of coal and other fossil fuels, and thereby helps reduce your individual carbon footprint. But it's also more expensive as electricity from coal and other sources.

To encourage Americans to use solar power, the Environmental Protection Agency and the Department of Energy run the Energy Star program, which, among other projects, offers tax credits for solar-powered systems. This is a dollar for dollar savings, and the money goes right into your pocket.

A taxpayer may claim a credit of 30% of qualified expenditures for a solar PV, solar water-heat, wind, geothermal heat pumps, other solar-electric technologies system that serves a dwelling unit located in the USA

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that is owned and used as a residence by the taxpayer. Expenditures with respect to the equipment are treated as made when the installation is completed. If the installation is at a new home, the "placed in service" date is the date of occupancy by the homeowner. Expenditures include labor costs for on-site preparation, assembly or original system installation, and for piping or wiring to interconnect a system to the

IRS INCOME TAX CREDIT PROCESS

home. If the federal tax credit exceeds tax liability, the excess amount may be carried forward to the succeeding taxable year. The excess credit may be carried forward until 2016, but it is unclear whether the unused tax credit can be carried forward after then.

As a credit, you take the amount directly off your tax payment, rather than as a deduction from your taxable income. You can claim the credit for your primary residence, a vacation home, and for either an existing structure or new construction. Other than the cost of the system, there's no limit to the dollar amount of the credit.

You can't claim a credit for installing solar power at rental properties you own. The exception is if you also live in the house for part of the year, and use it as a rental when you're away. You'll have to reduce the credit for a vacation home, rental or otherwise, to reflect the time you're not there. If you live there for three months a year, for instance, you can only claim 25 percent of the credit: If the system cost \$10,000, the 30 percent credit would be \$3,000, and you could claim a quarter of that, or \$750.

To claim the credit, you must file IRS Form 5695 as part of your tax return; you calculate the credit on the form, and then enter the result on your 1040. You can download the form at the IRS website <http://www.irs.gov/pub/irs-pdf/f5695.pdf>.

For example, if you make \$100,000 a year, are married and have very few itemized deductions coming your way, you can expect to pay around \$12,000 in federal income tax. If you recently installed a solar panel array that cost you \$30,000 after all (if any) state or utility rebates are deducted, your federal income tax credit would be \$9,000.

If you have been paying your federal income taxes throughout the year via automated deductions from your paycheck, you would receive a \$9,000 income tax refund when the IRS processes your tax return.

If you end up with a bigger credit than you have income tax due -- a \$3,000 credit on a \$2,500 tax bill, for instance -- you can't use the credit to get money back from the IRS. Instead, you can carry the credit over to the following tax year. Energy Star states that you should be able to carry the credit over as far as 2016 if need be.

PROPERTY TAX EXEMPTION PROCESS

The Texas property tax code allows an exemption of the amount of the appraised property value that arises from the installation or construction of a solar or wind-powered energy device that is primarily for the production and distribution of thermal, mechanical, or electrical energy for on-site use, or devices used to store that energy.

In 2012 the State of Texas updated their tax code to mandate that owners of a solar energy system file an annual exemption to exclude the solar array from being included on the property's tax assessment. Some utilities providers will send out the property tax exemption form to all their registered solar installations while most utilities companies will not. However EcoOne will notify all of our customers via email with the appropriate form attachment, that it is that time of the year for solar property tax.

There are laws in most states in the USA exempted residential solar energy systems from property tax assessments.



To complete this form you will need to know the “description” of the “device”. The description of a solar energy system is the size or rating of the solar array. To find this information, look at the original proposal or invoice where it is typically noted in kiloWatts (kW).

MONITORING THE SOLAR SYSTEM

A solar system is quiet and unobtrusive. There is no sound indication or other tangible sign that your system is working. In the unlikely event that your system isn't performing at optimal levels, we'll investigate and remedy the situation.

Eco-Estates Solar Systems offers a performance guarantee that your system will produce as much electricity as we promise, or we will correct the system. This takes into account normal weather variation and solar panel performance over time. The amount of electricity we promise to deliver is the kW number that is stated in your proposal and contract.


Take an instance when the hot tub and pool contractor installed a new breaker when he upgraded the hot tub pump system and likely turned off the power from the grid and also from the solar PV system.

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When he finished, he turned on the grid power, but forgot to turn on the solar PV system.

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“The race is now on between the techno scientific and scientific forces that are destroying the living environment and those that can be harnessed to save it. . . . If the race is won, humanity can emerge in far better condition than when it entered, and with most of the diversity of life still intact.” Edward O. Wilson,
The Future of Life

“Solar power is the last energy resource that isn't owned yet - nobody taxes the sun yet.” Bonnie Raitt

“Men argue. Nature acts.” Voltaire

“Climate change is a terrible problem, and it absolutely needs to be solved. It deserves to be a huge priority.”
Bill Gates

“It's coming home to roost over the next 50 years or so. It's not just climate change; it's sheer space, places to grow food for this enormous horde. Either we limit our population growth or the natural world will do it for us, and the natural world is doing it for us right now.”
David Attenborough



CUSTOMER REFERRAL PROGRAM

It appears the outbreak of solar in the Steiner Ranch subdivision, now reaching the status of a pandemic, began with Nathaniel ('Than'), a research biologist studying the effects of climate change on stream ecosystems for the US Geological Survey. Than understood the environmental and economic benefits of solar energy and put solar panels on his roof, after a brief struggle with the homeowner association.

With the support of Eco-Estates with the solar presentation at one of the HOA meeting, the HOA eventually signed the approval the installation. Soon afterwards, neighbors up and down the subdivision began to consider solar. Than and his wife Tetyana, a Sierra Club executive, and EcoOne encouraged this interest at social gatherings and events around town. Soon afterwards, neighbors up and down the alley put up solar panels to harvest the plentiful sunlight.

Our approach to your valued friend is a soft, education-based process where we deliver the knowledge needed for a solar technology and second trust that Eco-Estates is looking out for their best interests.



Thank You
FOR YOUR REFERRAL

Eco-Estates wants to incentivize solar to spread through your warm network of friends, neighbors, and family by offering a discount or gift to both you, the referrer and your referral. When the solar project goes forward, we will apply the referral discount to the invoice of our new customer and send you your bonus, along with a heartfelt thanks.

ABOUT ECO ESTATES

Eco-Estates' Custom Homes is amongst the most respected and well-known elegant net-zero energy zero-emission eco-friendly homes builders and in-house renewable energy installation services in North America. We are the leader in eco building and lead the way to a sustainable future. Ever since our inception, we have been dedicated to building spaces that reflect the personality and charm of all our clients. All through the years, our commitment to building the best eco- homes has allowed us to build a solid reputation honesty, trustworthy, dependable and professional where we are trusted by many of our loyal clients.

Being one of the best elegant net-zero energy zero-emission eco-friendly home (eco-home) builders in North America, we take it upon ourselves to make sure that we deliver nothing but the best. The eco-homes that

For more information, contact us for your free home solar audit or let us help you to build your dream home. You may like to stay with the leader of green building and renewable energy system by friend us on Facebook.

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<http://www.ecoestates.us>



we have designed and built over the years have made it possible for us to be known in the international green building industry as providers of innovative net-zero new homes that truly deliver great value for money. Every single elegant eco-homes that we build reflects upon the high standards of workmanship that we put in.