



Charging Your Electric Vehicle with Solar



Quick Quiz:

If you answer "Yes" to either of these two questions, then read on:

- I own an electric vehicle
- I may own an electric vehicle in the next 5 years

Why using solar panels to charge your electric car is the cheapest way to refuel it

Can be 50% cheaper than grid power - It is common knowledge that the solar power you produce from your home's solar energy system is much less expensive than using grid power. The equation is simple: Having solar + electric vehicle = maximum energy savings.

Tax credit applied - When you purchase a solar energy system, you qualify for the 30% federal tax credit on your system. This brings the price down on your home power plant which translates to additional savings on the cost of the energy to charge your electric car.

Table of Contents

Electric Vehicle Charging at Home	1
<hr/>	
Electric vehicle charging at home is difficult	
The Solution: Get Solar with an EV Charging Inverter	
Environmental Impact: A grid powered car is still a fossil fuel powered car	4
<hr/>	
Let SolarMax guide you	5
<hr/>	
Bonus Material	6
<hr/>	
How to apply for Edison's \$1,000 Clean Fuel Reward Program	
CA Clean Vehicle Rebate of \$1,500 to \$2,500	
IRS Qualified Plug-In Electric Drive Motor Vehicle Credit	
IRS Tax Credit for a Solar Car Charging Inverter	
Get the Zero Emission Vehicle Discount on CA toll roads	
How to apply for the CA DMV carpool lane stickers	



Electric vehicle charging at home is difficult

Your car manufacturer's supplied charging cable is SLOW

When you buy or lease an electric vehicle, the dealer sends you home with a charging cable that plugs into your home's standard 120V outlet. The problem is that 120V power can only charge your car's battery at a rate of approximately 4 miles per hour of charging. Is that fast enough to give you the range you need for the next day of driving?

The costs of installing a Level 2 EV charger on your own

In order to charge your car's battery quickly, you'll want to upgrade to a Level 2 charger which can quadruple your charging rate. However, you'll need to purchase a Level 2 charger which also requires installation and the use of a 240V outlet.

- Purchasing the Level 2 charger can cost \$800 on average
- Installing a 240V circuit in your garage can be expensive. You'll need to find and hire a licensed electrician and in some cases the new circuit requires an upgrade to your main electrical service panel (aka circuit breaker).

Installing a Level 2 EV charger can easily cost at least \$1,600. That cuts deeply into the potential energy savings you are trying to get from your electric car.



The Solution: Get solar with an EV charging inverter

Luckily SolarMax Technology has the perfect solution – the electric vehicle charging inverter. When you get solar panels installed on your home, one of the main pieces of equipment that converts DC energy into the AC energy that your home uses, is the inverter.

Save time, money and hassle

When you buy a solar energy system for your home from SolarMax, you can get the inverter with an EV charging station included in your installation. This saves you the hassle of finding and hiring a licensed electrician. It also saves you the cost of buying a separate Level 2 EV charger and the required installation materials. This can be a savings of at least \$1,600.

In addition, all your solar installation costs can be claimed in your 30% federal tax credit.



The Solution: Get solar with an EV charging inverter (Continued)

Solar Boost Mode = Even faster charging

An EV charging inverter from SolarMax has the ability to supply a faster charge rate than a standard Level 2 charger during the day when the solar panels are producing electricity. The additional energy from the solar panels can boost the Level 2 charging rate an additional 25%!

Schedule fast charging during the cheapest time of use utility rates

The electric vehicle charging inverter from SolarMax allows you to schedule your vehicle charging times from an app on your smart device. For those of you who are on a Time-of-Use rate plan with your utility (such as SDG&E, SCE, or PG&E), you'll want to charge your vehicle later at night when rates are more affordable and you get the most value from the surplus of solar energy you were credited for during the day. Since the charger works quickly at Level 2 you don't have to have the car plugged in for over 12 hours during the most expensive early-evening energy rates to get a full day's worth of driving in.



Environmental Impact: A grid powered car is still a fossil fuel powered car

When you plug your electric vehicle into the wall socket without solar, you are powering your car from the electrical grid. Depending on your utility, about 40% - 60% of grid power is still supplied by power plants fueled by fossil fuels and non-renewable energy. **Does the idea of driving around a coal-powered car bother you?** Then consider the alternative – power your car on sunshine.

By charging your electric vehicle with your own solar panels, **you can offset the fossil fuel grid power 100%** and know that your vehicle truly leaves a carbon-neutral footprint on the environment.



Let SolarMax guide you into a life powered by clean, affordable sunshine

Reach out to SolarMax Technology for guidance on how to take advantage of solar energy. We'll show you how simple it is to get a premium quality solar energy system designed, engineered and assembled here in the USA with the best financing in the industry.

- 1. A friendly SolarMax solar consultant** will provide a no-obligation evaluation of your home and driving energy needs and let you know how many solar panels will be required to meet all your energy needs.
- 2. An experienced SolarMax system engineer** will design a custom solar energy system that produces the maximum amount of energy so that you get the most value out of your investment.
- 3. The in-house finance department** will create an affordable financing package to meet your financial goals and maximize your savings. Whats your full address?

Contact us for a FREE consultation!

(866) 343-9686

www.solarmaxtech.com

CA LIC#972048 ©2019



Bonus Material



Apply for Edison's \$1,000 Clean Fuel Reward Program

If you are a Southern California Edison customer and you've purchased or leased an electric vehicle, you can apply for up to a \$1,000 rebate from Southern California Edison with the Clean Fuel Reward Program.

What You Need to Apply:

- **SCE Service Account Number** - This is the number located at the top of your SCE bill. If you're on paperless billing log into [My Account](#) to get your Service Account Number.
- **Vehicle Purchase or Lease Agreement** - You'll need to scan a clear and legible photo of all the pages of your purchase or lease agreement.
- **Current Vehicle Registration Card** - You'll need to upload an image of your current vehicle registration card to complete the application process. If there are two names on your vehicle registration card, choose one vehicle owner or lessee to apply for the rebate. Temporary registration cards are not accepted.

[Apply online for your rebate](#)



Apply for the CA Clean Vehicle Rebate (CVRP)

California residents can apply for a \$2,000 rebate on pure electric battery cars, \$1,000 for plug-in electric hybrid vehicles and \$4,500 for fuel cell electric vehicles with the [CA Clean Vehicle Rebate](#). If you meet certain [“low-income” requirements](#) then you can get an additional \$2,500 rebate as well. You can apply within 18 months of purchasing or leasing an eligible vehicle.

Unfortunately state lawmakers have recently stopped offering rebates on cars over \$60,000 because these expensive cars are considered luxury models. Just check the list of eligible vehicles below to make sure your car qualifies. But don't delay because there is a limited amount of funds for this rebate – so apply now before they are gone.

- [Eligibility guidelines](#)
- [Eligible vehicles](#)
- [Apply online for your rebate](#)



Apply for the IRS Qualified Plug-In Electric Drive Motor Vehicle Tax Credit

If you purchase your electric car you can claim a tax credit starting at \$2,500. Additional tax credits are added if your vehicle's battery size is at least 5kWh up to a maximum of a \$7,500 credit if your battery exceed 16kWh. We encourage you to check with your tax professional to fully understand what the tax credit means for your unique situation.

If you lease your vehicle, the tax credit is claimed by the manufacturer. Sometimes that is used to bring down the lease price, but check with your dealer because the amount passed onto you varies by dealer.

Read the IRS tax code to see how the tax credit works and for a list of qualified vehicles - [IRC 30D New Qualified Plug-In Electric Drive Motor Vehicle Credit](#)



Get the IRS Tax Credit for a Solar Car Charging Inverter

Charging your electric car with your own solar panels is the cheapest way to fuel your car. SolarMax has a nice infographic that breaks down [the cost of charging an electric car at home](#).

The preferred way to charge your car at home is with a fast, Level 2 charger. But they can be a hassle and expensive to buy and install. A great way to get a fast, Level 2 charging station installed in your home at no real additional cost is to have your solar panels installed with an [Electric Car Charging Inverter](#). Then you can claim the 26% to 30% [solar tax credit](#) on the whole cost of solar installation including the car charger. This way your solar energy system is not only saving you money every month on your electric bill but also fueling your electric car with cheap, naturally abundant sunshine.



Apply for the Zero Emission Vehicle Discount on CA toll roads

As of January 1, 2019 there is a discount for clean air vehicles on the 91 Express Lanes, but not on any of the other Fast Trak toll roads in California. If you drive a 100% battery electric car, you may be eligible for a Special Access Account.

- [Special Access Account Application and Agreement for the 91 Express Lanes](#)



Apply for the CA DMV carpool lane stickers

By driving an eligible clean air vehicle you can apply with the CA DMV to get a carpool sticker (Clean Air Vehicle Decal) that will allow you to be a solo driver in the HOV carpool lane.

How to apply for the Clean Air Vehicle Decal:

- Check that your vehicle is on the [List of eligible vehicles for the Carpool Sticker](#)
- Fill out the [CA DMV application for Clean Air Vehicle Decals](#)
 - Complete the vehicle information at the top of the application.
 - Complete Section 1 with the Current Registered Owner's Name and Address.
 - **The vehicle must be registered in the applicant's name.** If this is a recently acquired vehicle, the transfer of ownership (from dealership or private party) must be completed before the application can be submitted. You will receive a registration card from DMV once the transfer of ownership is complete.
 - **The address on the application must match the address on the**

vehicle registration card. If your address needs to be updated, you may complete a Change of Address online at www.dmv.ca.gov before submitting your application or submit a [Change of Address \(DMV 14\)](#) with your application. Note: This also applies if you are adding a new or separate mailing address currently not on file with DMV.

- Complete Section 2 by checking “Original decals”, if the vehicle has never been issued a clean air decal, and check the correct boxes for your vehicle’s exhaust standard and motive power.
 - If you are unsure of your vehicle’s exhaust standard or motive power, visit the [ARB website](#) or call 1-800-242-4450
- Complete Section 3 by reading all important information, printing your name, telephone number, and sign the application.
 - An original signature is required.
 - The signature for a company or business must include the printed name of the company/business and an authorized representative’s countersignature on the signature line (e.g., ABC CO. by JOHN SMITH or JOHN SMITH for ABC CO.)
- Submit the **completed application and \$22 decal fee** to the address shown on the form.