

EV Pilot Rates Commonly Asked Questions

Hawaii is on the verge of a major transportation transformation.

Plug-in electric vehicles (EVs) are coming to market, some in the next few months. Hawaiian Electric companies are helping make Hawaii EV Ready. Here are some commonly asked questions about EVs.

Why should I consider an EV for my next vehicle purchase?

EVs are fun to drive and offer many other advantages. Rebates, tax credits and fuel savings can make them cheap to own and operate. The cost per mile of driving an EV could be as little as one-third the cost of driving an internal combustion (IC) vehicle. A power plant generating electricity for thousands of EVs is more efficient and cleaner than thousands of IC vehicles burning oil. Our environment will benefit even more with electricity from renewable sources, like wind.

What are the Hawaiian Electric companies doing to make Hawaii EV Ready?

Hawaiian Electric, Maui Electric and Hawaii Electric Light Company are offering EV Charging Rates to get EV-Ready and learn how we can better serve customers as Hawaii driving goes electric. Up to 1,000 customers (residential and commercial) on Oahu, 300 in Maui County and 300 on Hawaii Island can participate in this pilot offering. Hawaiian Electric wants EV owners to charge vehicles during off-peak hours (9 p.m. to 7 a.m.) as much as possible, so the EV charging offers time-of-use (TOU) rates.

What are TOU rates?

With TOU rates you pay more per kilowatt hour at times when electricity demand is greatest and less when demand is lower. Think of a fleet of buses. The bus fleet MUST have enough buses to take care of rush hour. By encouraging riders to take the bus outside of rush hours, the fleet doesn't need to add so many buses which would be idle except for rush hours. Planning to provide reliable electricity works the same way. TOU rates are already available for many residential and commercial customers and EV Charging Rates will be an even better deal.

What kind of EVs qualify for this rate?

Eligible EVs get all or some power through a plug, have a four kilo-watt hour or larger battery and are qualified to drive on public streets, roads and highways.

What kind of EVs do NOT qualify for this rate?

We are using federal definitions that set qualifications for rebates and tax credits. Hybrids that do not plug in to recharge their batteries do not qualify. Neither do "neighborhood EVs" (NEVs) that are legally limited to roads with speed limits of 25 miles per hour (40 km/h) or less, usually are built to have a top speed of 30 miles per hour (48 km/h), NEVs fall under the United States Department of Transportation classification for low-speed vehicles. Electric scooters, electric bicycles, golf carts and motorized electric wheelchairs do not qualify.

Do I have to use the EV Charging Rates if I have an EV?

No, you can charge your EV at your current electric rate, if you choose.

Are there any rebates or incentives for purchasing an EV?

For a list of federal & state incentives please visit the U.S. Department of Energy web site at www.afdc.energy.gov/afdc/law or call (877) 337-3463 or the Energy Division of the State Department of Business, Economic Development and Tourism web site at <http://hawaii.gov/dbedt/info/energy/evrebatesgrants/rebates>. Consult your personal financial advisor or tax preparer if you have questions.

How do EV Charging Rates work?

For residential customers, you have a choice of 1) using one electric meter to charge your EV along with all your home energy use or 2) adding a second, dedicated meter just for EV charging while running your home through your present meter at standard rates (Note this option is currently not available in Maui County). Whichever option you choose, the same low rates are available for charging from 9 p.m. to 7 a.m. when electricity demand is low. You may always charge during the day, but you will pay higher than typical rates to do so.

Rates are designed so if you do not change how you use electricity, the total you pay for all electricity other than to charge your EV should be about the same as today

How to choose?

If you are a residential customer, you may want to get help from your EV dealer or an electrical contractor. Hawaiian Electric Company can also give you a few guidelines on choosing the rate that best suits you.

If you use little electricity from 7 a.m. to 9 p.m., the one-meter option may be best. If you use a lot of power from 7 a.m. to 9 p.m. and especially during the peak demand time of 5 p.m. to 9 p.m., a second meter could be the way to go. (Commercial customers must get a second meter for EV charging.)

With a single meter, you will pay the lowest rate for all electricity you use in your household from 9 p.m. to 7 a.m. You will pay a slightly higher rate from 7 a.m. to 5 p.m. and a higher rate for all electricity you use from 5 p.m. to 9 p.m. The single meter option will require that the meter you have now be replaced with a new time-of-use (TOU) meter.

If you elect to have two meters, one will be the same one you use now and the second meter will be a new TOU meter. All electricity you use to run your home OTHER than for charging your EV will go through the same meter at the same rates you pay today, all day. Your EV charging would be exclusively metered by the new TOU meter at the low EV rate from 9 p.m. to 7 a.m. and at a higher rate from 7 a.m. to 9 p.m.

If I have two meters, can I use the TOU meter for other appliances?

No, if you have two meters, you may use the second meter ONLY to charge your EV, not for any other use. Please note that any apparent fraudulent use of the EV charge facilities under this rate option would be treated and investigated by Hawaiian Electric Company in a manner consistent with its power theft policies

How to get started?

If you are in the process of purchasing or leasing an EV you will want to consider the EV battery charging options available. Your EV dealer and the EV manufacturer are good resources for available charging options. In some cases a simple 120-volt plug and cord set using a standard outlet (Level I charging) may be all that is required. But in most cases customers will want to charge their EV with a faster Level II charge station. Again, your EV dealer or manufacturer would be best able to help you make this decision.

Your EV dealer can help provide turnkey services or recommend an electrical contractor familiar with its vehicle charging system. The contractor will visit your home (or workplace) to assess your electrical requirements and present an estimate for the installation of the charge station and any necessary changes or upgrades to your wiring. You may accept that contractor's estimate or find another contractor on your own. As with all electrical upgrades, your county building department must approve plans and sign off when the installation is complete.

Hawaiian Electric will provide an advanced TOU meter for EV charging at nominal monthly cost. If you decide on a second meter, changes to your electric wiring that includes the required installation of a meter socket will require a contractor's assistance. The new meter socket must be installed according to HECO's installation standards and the meter must be accessible to field service personnel.

How do I sign up?

To initiate sign up for the new rate, customers with an EV or who plan to buy one can:

- Call Maui Electric Company Ltd, Engineering Department 871-2390;
- Email to mecoengr@mauielectric.com; or
- Write to Maui Electric Company, Engineering Department, P.O. Box 398, Kahului, Hawaii, 96733-6398.

You must provide closed building permit(s) for EV charging station(s), where applicable. You must maintain and provide a valid, current EV registration for vehicles charging at the account location. If you elect the two meter option, you must certify that service under this rate will be for EV charging only.

Can my business provide charging to customers or employees?

If your business plans to provide charging stations for customers or employees, but do not own an EV, you must also provide certification that service under this rate will be for compliance with Hawaii Revised Statutes Chapter 291-A (which requires EV charge stations in large public parking areas) and/or for EV charging only, and such additional certification as the pilot may determine is required.

When should I start the process?

Hawaiian Electric, Maui Electric and Hawaii Electric Light Company want to help you have a great EV experience as well. The best thing to help your utility help you is to tell us early if you are considering buying an EV for home or business.

Why are Hawaiian Electric, Maui Electric and Hawaii Electric Light Company doing this?

The Hawaiian Electric companies proposed this pilot program to:

- Help meet the Hawaii Clean Energy Initiative goal of 70% clean energy by reducing the use of oil for ground transportation.
- Encourage the early adoption of electric vehicle and off-peak electric vehicle charging that will help grid stability.
- Collect electric vehicle charging and load control data to better understand grid impacts due to electric vehicles.

How will the utilities learn from this pilot?

For a limited number of participants, Hawaii Electric, Maui Electric and Hawaii Electric Light Company will install a load profile data recording device at no cost to the customer. This will help us learn about vehicle use and any impact on the grid.

In addition, for a limited number of Oahu participants, a load control device will be installed on the charging system – at no cost. It will work like the present Energy Scout program which allows the utility to briefly shut off participating customers' water heaters and air conditioners remotely during periods of generation shortfall to meet peak demand. Hawaiian Electric may conduct periodic tests of the load control devices to evaluate their use, as a condition of offering the EV Charging Rates.

Can I get a copy of the proposed rates?

All Hawaiian Electric companies' rate sheets or tariffs are available on-line at www.heco.com.

How does paying for kilowatt hours compare to paying for gasoline?

In July, 2010 on Oahu, a mid-sized internal combustion sedan with average fuel economy of 27 miles per gallon had a fuel cost of 12 cents per mile at \$3.35 per gallon of gasoline. In the same month, with electricity on Oahu at 25 cents per kWh, a mid-sized electric vehicle with a range of 100 miles on a 24-kWh battery has a charging cost of 5 cents per mile, taking advantage of what would be a 19-cent/kWh off-peak charging rate.

Will I get one bill or two?

If you opt for the one-meter rate, you will receive a single bill. If you use the two-meter rate you will receive two bills. Commercial customers will receive a separate bill for every meter.

If I am a Net Energy Metering (NEM) customer, can I continue to use NEM?

Yes, you can continue to use net energy metering. Any excess power you send from your renewable energy installation (like solar panels) will be credited to your account at the same rate as you would pay for if you took power from the grid at that time.

Can I sell back electricity from my EV battery through vehicle-to-grid technology?

No, this technology is not currently available. Automakers and utilities are investigating plug-in vehicle-to-home and vehicle-to-grid technologies. In the future, electric vehicle owners may be able use their vehicles as a source of electricity during a power outage or emergency or offer electricity back to the grid during periods of high electricity demand.

What happens if I no longer own or operate a plug-in electric vehicle and want to turn off EV Charging Rates or if I move from my present home to another address?

You will need to call Hawaiian Electric and request that the electric vehicle service be turned off. There is no charge for rate disconnection service. If you move and wish to continue EV Charging Rates at your new home, notify Hawaiian Electric when you shut off your old service and start new service. Hawaiian Electric will discontinue EV Charging Rates at the old address and start them at the new address when upgrades have been made, if needed, and a new meter has been installed.

Can Hawaiian Electric install a plug-in electric vehicle charging circuit and charging equipment for me?

No. Hawaiian Electric can only work on the utility side of the meter, providing the necessary service to the house or facility. A licensed electrician should be consulted for additional electrical work.

Where can I get more information about a particular EV?

For more specific information about EVs, vehicle pricing, batteries, charging specifications, safety, special programs and other vehicle details, please contact the specific automobile manufacturer.