

Telematics Update

Telematics Phantom Drain Issues Fixed by Eversource

Some EV owners who are interested in participating in the Eversource and UI (collectively, the EDCs) demand/response charging incentives, but do not have/don't plan to get an approved charger are still able to participate via telematics, where the EDCs communicate directly with the vehicle.

Eversource customers who signed up were seeing frequent battery wake-ups as the car was being pinged every half-hour along with measurable battery drain. This has now been fixed, courtesy of a software update. Also, the demand-response period ends at the end of this month. There will be a new vendor and new process rolling out in 2023.

Eversource has thanked the club, particularly Paul Braren, for the detailed feedback and beta testing of the new software.

This was not an issue with United Illuminating, which uses a different vendor.

Changes Coming for Next Year

The demand response program involved discrete events, meaning periods of a few hours on a hot day, where charging gets throttled. For year 2 and going forward, the Public Utilities Regulatory Agency has asked for an additional option. It is referred to as "managed charging" and proposals are being submitted for approval. Most likely, consumers will have an opportunity to choose A or B, with different incentive levels associated with each. When details are available, we will update.

Eligible Equipment and Vehicles Update

Since the majority of registered BEVs in the state are Tesla, the question has come up on more than one occasion of whether Tesla chargers will be part of the program. To this point, Tesla has not submitted a charger for the EDC approval process, and so telematics remains the only option for Tesla owners. There are also a lot of EV owners, and not just Tesla owners, that already have chargers, which may not be part of the program. The telematics option is available for some of these vehicles.

At this point, only ChargePoint and EnelX (JuiceBox) have approved chargers, several models for each.

Below is the list of approved telematics vehicles.

Eversource Customers	
Electric Vehicle Make	Electric Vehicle Model
Ford Mustang	Mach-e: 2021 models and newer
Jaguar	I-Pace: 2019 models and newer
Range Rover	PHEV P400e: 2019 models and newer
	Sport PHEV P400e: 2019 models and newer
Tesla	Model 3: 2017 models and newer
	Model S: 2012 models and newer
	Model X: 2016 models and newer
	Model Y: 2020 models and newer
Toyota	Prius Prime: 2021 models and newer
	Rav4 Prime: 2021 models and newer
Volkswagen	e-Golf: 2020 models and newer

The list of approved chargers and telematics vehicles is currently the same for both Eversource and UI. Eversource has advised us of pending telematics approval for several vehicles from **Hyundai**, namely the **2021 Ioniq BEV and PHEV, Ioniq 5, Santa Fe PHEV, and Tucson PHEV.**

Level 3 Utility Incentives Fully Subscribed For Cycle One

Applicants Will Have To Wait

Good news/bad news. Demand is strong but the funding isn't there to fully meet it.

A crush of applications for incentives for DC Fast Chargers, the high-powered chargers that can recharge an EV to 80% inside of 30 minutes, most frequently located along highway corridors, has caused the program run by Eversource and United Illuminating to become fully subscribed just six months after its inauguration. This is a 9-year program that runs in three 3-year cycles. So the funds depletion could last until 2025.

Eversource and UI have requested additional funds, so there could be funds available sooner, but it is too soon to know details. Eversource and UI advise that if you had planned to submit an application to follow through with that submission. They continue to evaluate applications and this will establish your place in the queue.

There is still a substantial amount of funding available for level 2 (240 volt) chargers and grants are being made on an ongoing basis.

This does not affect the residential incentives program (which does not include DCFC).

CHEAPR Follow-Up

The increase in the MSRP cap is fully implemented. Vehicles with an MSRP of up to \$50,000 are now rebate-eligible.

There are some vehicles that are eligible that are not yet on the list of eligible vehicles on the DEEP website. We have gotten a few inquiries about the Ioniq 5 in particular. DEEP is aware of that one and it will be added soon. If you are shopping for an EV and you don't see it included where you think it should be, let us know and we'll pass the info along. This applies not only to newly introduced models but also a new model year of an existing vehicle.

New EV Rate Design Released by PURA

Public Utilities Regulatory Authority (PURA) Directs Utilities to Offer EV Charging Incentives

The final rate design adjudication was released on July 14th. Even though it is the final version, it actually isn't quite final yet. We now know a lot about the program, but the document creates working groups to fill in unfinished gaps on some important details, such as some rates, approved equipment, etc. The PURA doc is uploaded to the website as a blog post [here](#). It doesn't exactly read like Jurassic Park, but we need this kind of thing if we are to wean ourselves off "dino juice."

The program is quite comprehensive, containing incentives for residential and commercial, the latter including workplace charging and fleets, and which also applies to municipalities. The incentives cover hardware, service upgrades, make-ready, demand charge mitigation, and discounted electric rates.

It is important to note that this program takes effect in January 2022. It is not retroactive. If you purchase a charger tomorrow, it will not be eligible for the subsidies.

Below is a summary of the incentives referenced in the chart at the top of the blog post. These are hardware and installation-related discounts:

- A residential incentive of up to \$500 for the cost of an EV charger. This incentive is for a smart charger, which is a WiFi-connected charger. EV charger prices vary, in part depending upon how many amps are drawn by the charger, but according to MYEV.com, the range for a smart charger is \$600-\$800. If you take advantage of this incentive, you are required to participate in a managed charging program. The point of the connected charger is to enable the utility (which is also known as an Electric Distribution Company or EDC) to see and communicate with the charging unit.
- Also for a residence, there is a subsidy to help with the cost of an electric service upgrade if that is necessary if your current panel does not have the capacity to accommodate the added amperage of an EV charger. The amount of the subsidy is not yet determined.
- There is no mention in the chart of a subsidy specifically for installation, so we assume for now that the \$500 applies to both hardware and installation. Installation costs can vary considerably depending on how far your panel is from your garage. It could be as much as \$1,000.
- There are similar incentives offered for multi-unit

dwellings (MUD), workplace chargers, and make-ready. The incentive is 50% of the cost of the charger subject to a cap for the site and a minimum number of charging ports. Note that this is ports, not chargers. There are dual-port charging units. There are higher site caps for MUDs, public level 2, and DCFC charging in underserved communities.

- There is a 100% make-ready incentive, which means the EDC will pay to bring the power to where the chargers will be installed. This is a big deal.
- Finally, there is a subsidy of 50% for the installation of a DCFC charger, which is short for DC current fast charger, also known as a level 3 charger. These are commercial, high voltage units that can quickly charge an EV capable of accepting a fast charge, which applies to most battery electric vehicles.
- There will be a list of specific approved charging equipment. This is necessary for the utilities to be sure they are able to get the information they need from the charger. This list will be finalized later in the year.

Residential Incentives for Electricity Usage

As noted in the first bullet about residential charging, a household can receive an incentive for participating in a managed charging program. There are 2 levels, called basic and advanced. As mentioned earlier, receiving the incentives for the hardware require participation, along with giving the EDC permission to capture data from the charger.

- Basic incentive. In this program, a consumer will be notified of an upcoming demand response event (i.e. when the EDC is expecting there to be a high demand for electricity and they need to take measures to avoid

brownouts or blackouts). The consumer has the option to decline participation. However, the default setting is opt-in. Incentives are awarded for participation. The particulars are still being developed, but there is a cap of \$200 per year, which will be sent as a direct payment to the consumer.

- Advanced (direct load control). The consumer will set charging sessions (via app, web portal, email or text) and the EDC has the right to throttle the rate of charge. The particulars of the incentive are still under development. Your participation level will influence the size of your incentive. We hope this is not too burdensome a level of admin for the consumer.
- The Authority has directed the EDCs to submit recommendations for EV rates for MUDs, which could involve sub-metering.

Note: A common way of protecting the grid, which is used in other places but is not part of this program, is time of use (TOU) charging. We are disappointed that this isn't part of the program because it is a very simple, easy to understand, no maintenance approach. If you charge during off-peak hours, you get a lower rate. Easy. The adjudication specifically states that it doesn't foreclose moving that way at some future point. There are regular evaluation points built into this 9-year program. And there is nothing to say that TOU can't be combined with managed charging. Theoretically, if every EV (assuming many more of them than there are today) started a charging session at the first minute of the off-peak period, there could be a demand surge, but managed charging could mitigate that.

There is an existing installed base of EV chargers, and many of these, my guess is almost all of them, are so-called dumb chargers. They are not WiFi enabled so the EDC can't see or interact with them. The program tasks the utilities to develop a workaround to include these chargers as it could jumpstart

program participation. There are existing programs at other utilities, Con-Ed comes to mind, that do just that. With Con-Ed, the driver gets a flash-drive type device to install in the car's USB port, or with some manufacturers, there is the ability to connect directly to the telematics of the vehicle with the owner's permission, and incentives will be developed to reward off-peak charging. This actually comes a little closer to time of use. Finally, a recent development is that there is equipment coming on the market that can add connectivity to a dumb charger. PURA is aware of this, as well as developments in better accessing vehicle telematics, and there is the potential for this part of the program to evolve.

The \$200 cap on residential demand response rebates seems low to us. The concern is the lack of differentiation between one and two (or more) EV households. We want to see all vehicles participating.

Demand Charges

Demand charges affect commercial establishments. If the demand for electricity spikes for a period of time above normative levels, electric rates increase substantially. Demand charges have been a barrier to the installation of level 3 charging stations. The adjudication directs the EDCs to maintain a temporary rate-rider to mitigate demand charges while taking the time to develop a more permanent and sustainable solution. Demand charges were originally developed so that those putting the most strain on the grid contribute disproportionately to necessary upgrades. These rules were developed long before the modern EV and definitely need to be re-thought.

Outreach

On balance, this is a strong program. We look forward to seeing, and if possible, being a part of, how it evolves. We intend to keep our members informed and hope the outreach, in

general, is effective so it hits the ground running in January!

How to Save Money on an EV

All You Need to Know About EV Incentives and Free Charging Opportunities

Virtual webinar: July 27th at 7 PM. Free registration is required:

https://us02web.zoom.us/webinar/register/WN_3fImyGBzT4yz0zrxex5Lg

The EV Club will be jointly producing and sponsoring a virtual webinar about the latest in incentives and free charging. Specifically, these are federal and state purchase incentives, incentives that reduce the cost of the electricity used to charge your electric vehicle, incentives to defray the cost of buying EV charging equipment, and free charging opportunities.

The incentives around EVs and charging are fluid.

The state recently implemented a number of changes to its CHEAPR EV purchase incentive program.

There is an expectation that either included or alongside the Biden Administration infrastructure plan, there will be an updated federal purchase incentive. The bill that was reported out of the Senate Finance Committee looks very good, but it could change considerably as it makes its way through the

legislature. There is also a federal tax credit for the purchase of an EV charging station that is due to expire at the end of this year. We are waiting to see if that resurfaces. The President and the leaders of the two chambers have talked about getting this done before the August recess. It may be cutting it close, but we are hopeful that the contours of the new plans will be known by the end of July.

The Public Utilities Regulatory Authority is in the process of adjudicating a new EV rate design that would include lower rates to charge an EV as well as subsidies for charging hardware. A preliminary document was issued on June 17th. The final document is due July 14th. This is a complex piece of regulation, but we will provide the key highlights for the webinar.