

First Look at Managed Charging Incentives

Utility EV Rate Design – Proposed Details for Single Family Residences

The grid at the top of this post comes from a filing by Eversource for its proposed EV charging incentive structure for single family residential homes. It is one piece of the many-legged creature that is the new EV Rate Design Adjudication that was released by the Public Utilities Regulatory Authority (PURA). In turn, the EV Rate Design is but one facet of PURA's larger grid modification docket. To be clear, these incentives come from the utilities.

When the adjudication was released in mid-July, not all of the incentive levels and implementation details had been determined. Working groups were set up to address the unfinished work. This is the month when a lot of the submissions are required.

The EV Rate Design is a big program that includes incentives for residential, commercial, workplace, fleet, and public charging. The incentives include hardware and installation subsidies, make ready, demand charge mitigation, and financial incentives to avoid charging during peak periods. The grid up above is only the single family residential part. This is not final. It has been submitted by Eversource to PURA for approval. There is a comment period and there could be changes. It is our expectation that changes will likely be at the margin. For that reason, we thought it worthwhile to tease it and these are the provisions.

Please note that this program begins in January 2022 and the subsidies for hardware and installation only apply to purchases after the start of the program. The first set of bullet points are for hardware and installation.

- A household can receive a \$500 subsidy to offset the purchase of a smart charger. It has to be a smart charger, meaning WiFi enabled, in order to be able to participate in the program because the utility, or Electric Distribution Company (EDC) as they are referred to, has to be able to see the charger/charging activity. Taking this subsidy requires participation in the demand response or managed charging program. \$500 is a meaningful amount as there are smart chargers out there in the \$6-700 range. Only approved equipment is eligible. The approval list has not yet been released. This is necessary because the EDC has to know that the unit will function in its particular software environment.
- There is an additional \$500 subsidy to offset the cost of bringing a 240 volt line from the panel to the garage. The total cost of this will vary with each residence based on the amperage of the line being pulled and the difficulty and distance in getting from the panel to the garage.
- If your panel does not have enough capacity for an EV charger, or the charger you want, you would have to upgrade your electric service. There is no provision to offset that expense, which can be \$5000 or more.
- There is an installed base of dumb chargers among existing EV owners and the program has a provision for these folks to participate.
 - If the vehicle has telematics access, GM and Tesla being the specific examples cited in the filing, the utility can capture the data via the car without needing the smart charger.
 - If there is not telematics access, the utility

will send a device to track it.

- There may be an installed base of smart chargers. The filing doesn't address this. It may be an omission. If the program wants to treat these differently than a dumb charger, then one would have to wait for a determination of whether this equipment is approved.

The next incentives are for participation. The idea is to offer discounts to get customers to charge their EVs during periods of lower electricity demand. This will help load balance the grid.

- For those accepting the hardware and installation incentive, since that comes with the obligation to participate, there is no enrollment incentive.
- For telematics participants, there is a \$200 enrollment incentive. For non-telematics "device" participants, the enrollment incentive is \$150.
- Charging incentives for smart charger and non-smart charger participants are capped at \$200 annually.
 - The program is intended to have 2 levels of participation: demand response and managed charging. Only demand response will be rolled out for 2022. Managed charging will follow 12 months later.

Demand response means that the utility will alert customers when a high demand period is coming. The alert will typically happen 24 hours prior to the event. These events will generally be 3 hour blocks of time occurring between 3 – 9PM in June through September on days when demand spikes. Customers with smart chargers will be opted-in by default but have the ability to opt-out for a given event in response to an alert. Being opted-in means that the car will either have its charging rate curtailed or will temporarily not be able to charge during the high-demand block of time. If a car is simply not plugged-in, that counts as being opted-in. Customers are permitted up to 2 opt-out events per month to

remain eligible for the incentive. Telematics customers will work similarly, except it is up to the customer not to plug-in during these times (since the utility can't control the charger). The incentive is structured as \$50 per month for each of the 4 months, paid annually after the summer.

The minimum participation requirement is 24 months. After 24 months, participation continues unless affirmatively withdrawn by the customer. Participation may be terminated prior to 24 months if there are extenuating circumstances, such as customer no longer owning an EV or moving to a new residence.

The more advanced demand charge level allows the utility to throttle the rate of charge as needed. There are no discreet events as with demand response. Customers can switch between tiers in either direction, but must participate for 6 months before switching and then another 6 months before switching again. The EDCs have proposed that a higher incentive be made available to participants in the more advanced managed charging program but have not yet specified how much it will be.

As noted at the start of the post, this plan is not final. We will publish updates as events unfold.