

# Utility Incentive Program Updates

## Restructured Residential Managed Charging Incentives

For the first year of the program, there was one incentive program. This was a so-called demand-response (DR) program, where the EDCs would declare demand events during peak load periods on hot days. These occurred during 3-9 PM on weekdays from June through September. They don't happen all the time, just when demand is very high due to heavy air-conditioning use.

The new plan revises this DR incentive and adds a second level of incentive known as Advanced Managed Charging, or Advanced Tier.

Before getting into the details, let's zoom out a bit.

As noted, current peak demand periods occur during hot summer afternoons. In a fully decarbonized, meaning electrified world, demand patterns will significantly change. If heat pumps become the primary means of climate control, they will be working hardest on the coldest nights where gas and oil do the heavy lifting now. The summertime demand will be reduced since heat pumps are more efficient than AC compressors. So the Public Utilities Regulatory Authority (PURA) wants to inculcate in consumers the habit of thinking about peak and off-peak utilization as a year round thing, while still responding to the near-term load-shedding needs that occur over the summer.

The Authority directs the EDCs to implement an annual passive managed charging program for the residential Baseline Tier,

with the on-peak period of 3:00 P.M. to 9:00 P.M. weekdays

participants shall be eligible for a maximum monthly incentive of \$10, so long as the customer charges the EV at least 80% of the time during off-peak hours for the given month

EDCs will stagger start times to prevent “timer peak.”

These new programs are anticipated to be effective as of April 1, 2023.

## **Baseline Tier**

The Baseline Tier is structured in 2 parts with separate payouts.

The first is a Passive Managed Charging tier where participants charge 80% or more of the time during the off-peak period and would be entitled to a \$10/mo award. Peak times are 3 PM – 9 PM weekdays for this monthly incentive.

Additionally, the Demand Response Events remain during June to September where participants are encouraged to not opt-out of optional DR Events. There can be up to 15 such events, occurring between the hours of 3 PM – 9 PM per month. Participating (i.e. not opting) out in all events in a given month would entitle a Participant to an additional \$20/mo for the four DR months.

In total, customers could earn \$120 (\$10/mo for 12 months) and \$80 (\$20/mo for 4 DR months) for a total of \$200 in Baseline Tier. The total amount of the incentive remains unchanged; only the structure is different.

## **Advanced Tier**

This tier is referred to as Active Managed Charging, where participants work with their utility to set a daily charging schedule that avoids on-peak charging. Customer inputs the

State of Charge (SOC) that they need and a Time Charge is Needed (TCIN) and the utility does the rest. Participant can set these as default, for example, “every day, I need 100% charge at 7am” and the utility does the rest. They can also adjust these inputs as needed. Participant is responsible for not overriding the schedule where that act of overriding causes them to charge on-peak. Participants are able to opt out in such a way twice in a given month and still retain their incentive – any more and they forfeit the incentive in that month. There must be a minimum of two at-home charging sessions during the month. The incentive is \$25 per month or \$300 per year.

Peak time is the same 3 PM – 9 PM as in the Baseline Tier.

Of the comments noted in the docket, the most interesting was from DEEP, which “opined that rather than limiting charging under this tier to solely off-peak hours, the Advanced Tier should instead allow charging during all hours and provide dynamic managed charging to real-time grid conditions.” That would be an optimal approach as, for example, it would take into account weather and distributed energy resource contributions, rather than the current flat approach of set time periods. Ultimately, that is the way we need to go.

**Note:** Purchase, installation, telematics enrollment incentives are unchanged. In the original docket there was an enrollment option involving a device that would be placed on a dumb charger. There is no sign that one has been approved. There was no mention of anything about it in the participation data.

## **Additional Funds**

Eversource and United Illuminating, the electricity distribution companies or EDCs, have reported high rates of participation for the DCFC (level 3) part of the program, as well as for the installation of level 2 chargers at Multiple Unit Dwellings (MUD). The MUD incentives apply to buildings

with more than 5 units and are governed by the rules for commercial incentives. The Public Utilities Regulatory Authority (PURA) has authorized making more funds available in the near term (by accelerating funds designated for other years). Eversource and UI have compiled waitlists for applications received subsequent to funds depletion which will now be able to be included.

## Leasing Program for Level 2 Chargers at MUDs

MUD = Multiple Unit Dwelling.

For these dwellings, defined as having 5 or more units, PURA has directed the EDCs to implement a leasing program for EVSE (chargers) as of February 2023. It is felt that some buildings may find it challenging to foot the upfront cost for multiple chargers/ports, even with the incentives and that leasing could ease overcome that. Furthermore, it allows the homeowner associations or building owners to gain experience with charging and tenant interaction.

The leases will be offered for 5 years, followed by an option to renew for another 5 years (at a lower price to reflect depreciation). At the conclusion of the second lease period, the dwelling will have the option of buying the chargers or allowing the EDC to repossess them.

During the lease period, the EDCs are obligated to engage a third party to maintain the equipment.

These are the prices listed in the December docket for the first 5-year term and are **not final**. Note that they are reflective of the distance between the EVSE and electric service.

**Table 16<sup>23</sup>****EDCs' Proposed Tariffs for MUD Level 2 EVSE Lease Program**

Distance from Electric Service or First Charger	Eversource		UI	
	Baseline	Underserved	Baseline	Underserved
<b>Two Charging Ports</b>				
Within 25' of Charger	\$91.23	\$91.23	\$113.10	\$113.10
Within 50' of Charger	\$91.23	\$91.23	\$113.10	\$113.10
Within 75' of Charger	\$103.39	\$91.23	\$124.40	\$113.10
<b>Additional Two Charging Ports<sup>24</sup></b>				
Within 10' of Charger	\$93.42	\$91.23	\$115.13	\$113.10
Within 20' of Charger	\$140.12	\$91.23	\$175.42	\$113.10
Within 30' of Charger	\$170.31	\$91.23	\$209.27	\$113.10

## Managed Charging for MUDs

How to charge for the power and offer incentives for load-shedding are complicated in an MUD setting, given that incentives are not always aligned between landlords and tenants, and there could be competition between tenants for less expensive charging slots. The EDCs have been directed to propose a voluntary opt-in managed charging program for MUDs for review by May 1 and implementation by July 1, 2023.

## The Telematics Vampire

# Home Charging Incentives Come With Unexpected Cost

When Eversource and United Illuminating began offering [incentives](#) to offset the cost of buying and installing a level 2 home charging unit, the incentives also include up to \$200/annually for participation in the managed charging program. (Participation in the managed charging program is mandatory if one takes the incentives for charging hardware/installation.) The only current version of managed charging that is operational at this time is the demand/response program, where during designated high-demand times occurring from June through September, the utility can throttle the rate of charge which would roughly lower the speed of the charge to the equivalent of a level one trickle-charge for the duration of the event.

Of course, at the point at which this program was inaugurated, there were already over 21,000 EV owners and some number (we don't know how many) of installed home chargers. The majority of these EVs (based on number of registrations) are eligible to participate in the demand/response program without having an approved charger by using telematics. This way, the utility controls the rate of charge directly with the vehicle.

Through the work of Roger Kappler and Will Cross of the Tesla Owners Club, and Paul Braren of the EV Club, we have learned that the utility "wakes up" the car to check charging status on a frequent basis, as often as every 30 minutes. What is really strange is that this checking is happening all the time (24/7/365) and not just during designated demand/response periods, hence the "vampire" charge. The car is using power even though it is sitting there doing nothing. Like your cable box (or sentry mode if you are a Tesla owner). Roger estimates that the charge is the equivalent of .5-1% per day, which at 20 cents per kWh, works out to about \$70 annually. The program pays a one time \$100 enrollment incentive for telematics plus

the above-noted \$200 for demand/response. This passive electric use takes quite a bite out of that. If the vehicle isn't plugged in, then it contributes to range loss.

Per Roger, Eversource has reported that it will be fixed but that it could take as long as 6 months.

The detailed Facebook post can be found [here](#). (Note: This is a closed FB group.)

This does not apply if you are using an approved smart charger as far as we know. (We're checking.)

This is not occurring with UI customers (according to UI). If any UI customers notice this, please leave a comment!