Absent Software, JuiceBox Chargers May be Dangerous

Absence of Software Could Cause a Failure to Regulate Current

We're not trying to be alarmist but we are trying to help spread the word of a potentially serious safety situation.

Abrupt Departure

Enel X Way, the manufacturer of JuiceBox EV charging equipment, made an announcement on October 2nd that was shocking in its abruptness. The company said it was pulling out of North America as of October 11th. As far as we know, there was no advance warning given to commercial or residential customers, or to utilities that include this equipment in managed charging programs. That was the case locally with Eversource and UI, which have been trying to find a path forward.

Without the software, the commercial units do not work. Initial reports were that residential equipment could be used as a "dumb" charger," meaning there would be no app functionality or connectivity and, unless a workaround were developed, customer enrollments in managed charging programs with this equipment would be terminated. That has probably happened at this point.

Inability to Control Amperage

Consumer Reports sent a letter to the Federal Trade Commission in October, which was co-signed by 65 JuiceBox owners. Among the lengthy list of issues they raise, two in particular stand

out. First, absent the software, there could be the loss of **“potentially critical functionality that allows them to adjust the amperage coming into the car from the charger. This means that consumers who are unable to adjust their settings before the October 11 deadline could see their chargers push too much amperage into the vehicle, potentially damaging the EV’s battery, shorting out their breaker box, and posing a risk of fire.”**

Uncertain Path Forward

Since the initial announcement, it has been reported, for example here, that the company has hired B. Riley Advisory Services to organize a managed liquidation and auction of its assets with an eye to maintaining functionality. This may be more difficult than it sounds. Enel X does not embed the Open Charge Point Protocol into its equipment in a way that makes it straightforward to migrate to another company’s platform. So, a hoped for short-term bridge solution is probably not in the cards.

Security Flaw

That leads to the second serious issue which is, again according to Consumer Reports, a security flaw in the software that can expose a user’s WiFi credentials. This is from the chip and firmware used in the equipment made by Silicon Labs, and there are no plans to update it. From the perspective of the utilities, even if the equipment comes back on line, this security flaw could represent potential exposure. If the equipment does come back online, it is not likely to be able to be re-enrolled in managed charging. These products have been removed from the qualified products list (QPL) by both Eversource and UI.

Consumer Reports characterizes the company’s behavior as “egregious,” and notes that these level 2 chargers cost about

$600 (residential) to as much as $1600 (commercial).

For managed charging, the quickest way to get back online is to re-enroll using telematics if you have an eligible vehicle. Regardless of managed charging participation, the safest route forward is to replace the charger. Unfortunately, it is not permitted for the utilities to give another incentive. The program design does not include eventualities for companies that bug-out.

The Consumer Reports letter concludes by asking the Federal Trade Commission to take action to protect consumers on the basis that this constitutes a deceptive or unfair business practice.