ReJoule Energy
From Hazardous Waste to Solar Energy Storage

The Problem

Although the United States' aim is to have a carbon-free grid by 2035, our solar energy production is already being curtailed. We lack the means to store it even for just a few hours until desperately needed to meet peak demand. Meanwhile, millions of electric vehicle batteries produced abroad will be decommissioned in the years to come, threatening a deluge of hazardous waste.
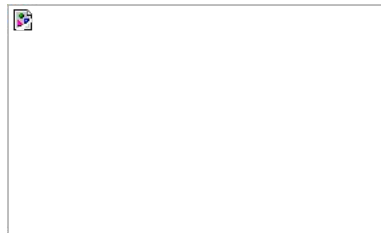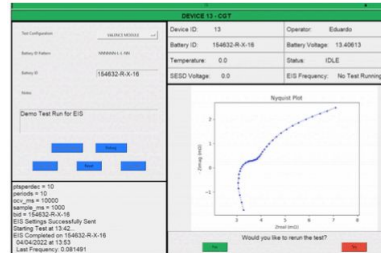
Our Solution

When decommissioned, EV batteries typically retain about 80% of their initial capacity. But first they must be tested for state of health (SOH) and safety. With existing technology, that can take up to 10 hours in a time, energy, and labor intensive process. ReJoule delivers comparable results in as little as 30 seconds, giving users access to immediate and accurate data on their battery health and performance.

Battery Evaluation Dashboard

The Market Potential

In a 2019 study, McKinsey & Co. estimated that the used-battery supply would be worth more than $30 billion by 2030. But if it takes 10 hours to test a single battery, it's no wonder why the industry remains a growing pile of hazardous waste. ReJoule's innovation can unleash this new global market.

ReJoule's Battery Enclosure

How It Works

ReJoule's technology uses electrochemical impedance spectroscopy (EIS) to measure the alternating current impedance (ACI) of a battery cell, module, or pack. ReJoule's hardware product is coupled with machine learning algorithms to correlate a battery's ACI to its SOH, the power delivery capability of the battery, and the state of balance (SOB) of the battery pack.

Rejoule's EIS technology and compact grading unit