FlexCharging

FlexCharging is an electric vehicle Demand Flexibility aggregator, shifting EV charging to the best time of day to minimize costs and carbon emissions.

The key point: the carbon intensity of the electric grid varies substantially throughout the day, and technological solutions that shift load to times of lower carbon intensity should be rewarded for doing so. This can be done with a daily forecast of marginal CO2 emissions.

We suggest that the state allow a very data-centric approach for determining carbon intensity of all uses of electricity. This affects two things: emissions-intensive trade-exposed industries, and the generation of credits for EV charging.

Specifically, we work with WattTime to consume a marginal CO2 emissions forecast for each utility balancing authority in North America (and beyond). WattTime provides this data at a 5 minute granularity. While data from utilities or from markets should be more authoritative, WattTime sets the standard for a robust methodology for calculating carbon intensity for electricity. Marrying this data with usage data provides very good carbon intensity data, and provides our best mechanism for optimizing to reduce emissions.

For a Clean Fuels Program, it's possible to collect very fine-grained data from electric vehicles on when they charge using vehicle telematics, or data from charging stations. Vehicle telematics are the most interesting for utilities since they can get the full lifecycle data of an EV, showing all locations where it charges (work, public, DC fast chargers, in addition to home).

FlexCharging's business is using vehicle telematics to shift charging to minimize costs and optimize around a marginal CO2 emissions forecast. We believe this provides substantial environmental value & cost savings for utilities. This level of data should be recognized for generating Clean Fuels Program credits, and we believe our marginal CO2 emissions data should be recognized by the state for determining the carbon intensity of any credits generated.

We'd be happy to discuss this in more detail.