

# VGI System Integration for Electric Vehicles

## Challenge

OEMs are integrating machine learning modules in Electric Vehicles (EVs) in an attempt to minimize electrical demand during peak hours to reduce consumer electricity costs, reduce electrical grid demand, and ultimately reduce the CO2 footprint of the driver. Additionally, these AI systems are attempting to open up gateways for new revenue streams by allowing consumers to sell back their unused electricity through the electricity market.

## Solution

VDart Digital's wealth of knowledge in machine learning algorithms, cloud technologies, and system integration was called upon as we partnered with a Global OEM to streamline the customer's technical development. Machine learning algorithms now accurately predict optimal charging times based on individual EV owner metrics and local electricity demand. Additionally, smartphone apps allow the customer to input planned trip data that will then be integrated with charging data and AI modules. The outcome results in not only significant consumer cost savings, but a reduced carbon footprint and a potential to turn a parked car into a revenue stream by selling unused energy back to the grid.

## Results

- Integrates with grid back-end and reduces consumer costs by only charging the vehicle based on driver habits and planned trip data that can be intuitively managed with a convenient mobile app
- Significant reduction in electric cost using AI to charge during off-peak-times and help balance the grid
- The demand-reduction can now be monetized through the electricity market
- Reduced environmental impact of customer's home-charging CO2 footprint
- Greatly reduced OEM environmental impact due to increased life of vehicle battery and reduced demand for newer batteries

## Moving our future forward

VDart Digital provides cutting edge solutions for Global OEMs, Dealerships, and Fleet Owners. Building next generation experiences to support the growing needs in automotive industry



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