

INDUSTRY

CHARGEPOINT EXPRESS



GOALS

- + Make fast charging profitable
- + Determine a pricing scheme to drive maximum usage
- + Prevent costly peak demand charges for utilities company
- + Drive maximum usage through selection of highly trafficked location

IMPLEMENTATION

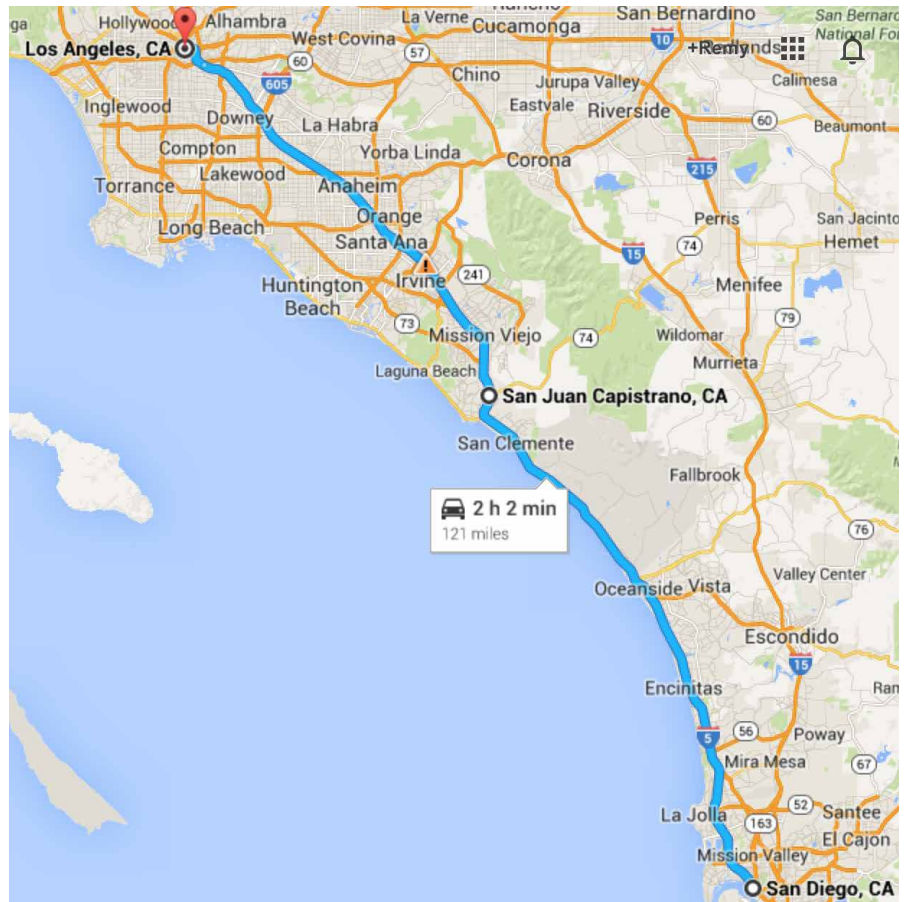
- + Installed Fuji's 25kW DC fast charger
- + Connected the station to the ChargePoint Express network
- + Worked with ChargePoint to determine optimal pricing scheme

RESULTS

- + 2,900 charges in 1.5 years
- + Over \$10,000 in revenue generated
- + Projected payback period of 3 years
- + EV drivers patronize local business
- + Marriott Hotel achieves TripAdvisor's Green Leader status

Fuji Electric Fast Charger Delivers 2,900 Charges, Generates \$10K in Revenue and Increases Business for Evoasis

In 2012, there were no fast chargers in Southern California despite accelerating EV sales and long commutes being the norm for the region. Evoasis, a startup, recognized there was a huge unmet need and possibly a related business opportunity, and sought to develop a profitable business model for fast charging. After landing on San Juan Capistrano for the location, the Evoasis station became the first fast charger on the ChargePoint Express network and quickly became the most frequented fast charger in the state and country.



A gateway city, San Juan Capistrano is on a highly frequented route between San Diego and Los Angeles.



Fuji DC Fast Charger at the Residence Inn, a Marriott Hotel in San Juan Capistrano, CA.

The Challenge

EV drivers greatly appreciate the convenience and peace of mind that comes with having easy access to fast chargers, but prefer not to pay significantly more to charge than what they pay at home or on a public Level 2 station. Evoasis needed to find a convenient location that would attract EV drivers, and a price point that would maximize utilization, while keeping the station profitable. The latter was a challenge given that drivers are accustomed to paying very little when charging at home at night and because fast chargers are generally in use during peak electricity demand hours.

A highly utilized fast charger installed on its own transformer would inevitably cause costly peak demand charges: a possible penalty of up to a few thousand dollars for just one infraction over 30 days. If EV drivers had to absorb that cost they would likely be priced out of the market, and Evoasis couldn't absorb the cost while keeping the station profitable.

The Solution

Evoasis chose to install the fast charger in San Juan Capistrano because the city is on a highly frequented route between San Diego and Los Angeles. They partnered with the San Juan Capistrano Marriott Hotel because it has a large electricity allowance as well as amenities that appeal to EV drivers, including a snack bar serving Starbucks coffee. Evoasis looked at various hardware options and chose to install Fuji's 25kW CHAdeMO fast charger because:

- + The unit only requires 208 volts to operate, making it relatively easy to install compared to stations that require 480 volts
- + With an output of only 25kW, it was less likely to trigger costly peak demand charges

Evoasis also chose the Fuji unit because the station is compatible with the ChargePoint network, giving Evoasis:

- + Access to granular data to track energy usage and environmental benefits like greenhouse gasses avoided
- + The ability to develop a customized pricing scheme that would appeal to the drivers they are targeting
- + Exposure to ChargePoint's large driver base via the ChargePoint mobile app and driver portal, and the telematics systems of many EVs



“Careful management of power delivery, combined with ChargePoint’s ability to set specific pricing controls and evaluate usage patterns with ChargePoint analytical tools, allows our fast charging locations to operate efficiently with little or no additional demand tariffs affecting our cost of operations.”

Angus Clark
CEO, Evoasis



“The addition of Fuji Electric’s EV charging station was an exciting step for us, and we are pleased to see how quickly our guests and local travelers have embraced this new technology. With over 200 charging sessions each month, we look forward to the continued success of this station as we consider possible sites for additional DC fast chargers.”

Grace Miane
General Manager,
Residence Inn
(a Marriot Hotel)

The Fuji fast charger station was connected to the ChargePoint Express network in November 2012 and soon popularity skyrocketed. In January 2013, Evoasis began charging drivers \$10/hour (prorated to the minute) during off-peak hours to use the station. The rate was increased to \$15/hour during peak hours to incent drivers to charge at times less likely to trigger peak demand charges.

Evoasis chose a duration-based fee structure with proration to the minute because they wanted to maximize utilization. Fast charging rates taper off over time as a battery heats up, so charging gets more expensive as time goes on when drivers are paying by the minute. As such, duration-based fees provide a monetary incentive for drivers to stop charging once they have charged enough to make it to their next destination. This keeps the station available for other drivers, helping to maximize utilization.

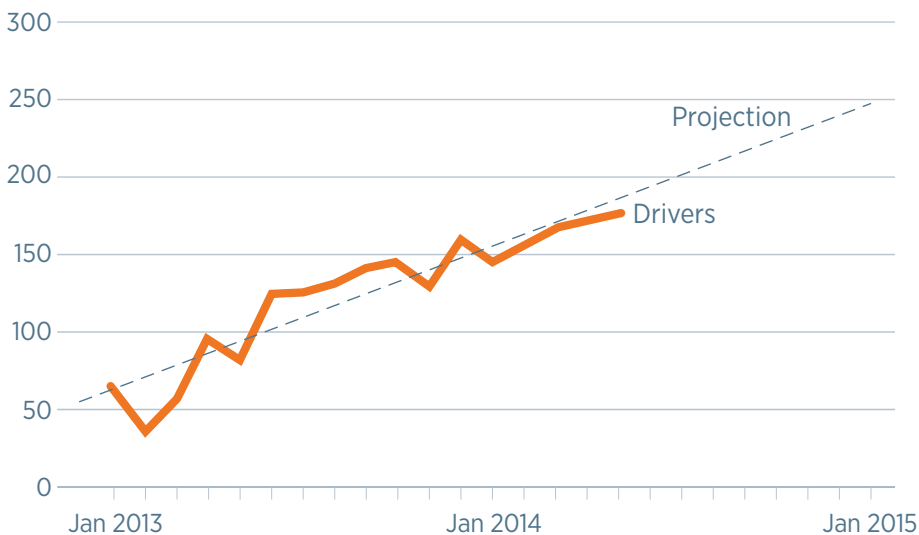
The Result

In the 1.5 years since being connected to the ChargePoint network, the fast charger has delivered over 2,900 charge sessions for a total electrical output of 18.6 MWh. In doing this, it has generated more than \$10,000 in revenue while adding only \$2,100 to the Marriot’s electric bill (based on the national average of \$0.12/kWh).

Evoasis Charging Sessions Growth Projections

\$1,000/month projected revenue by January 2015
(222 sessions per month at \$4.50/session on average)

Monthly Charging Sessions



At the current charging session growth rate, the station will soon be profitable.



Since the station opened, utilization has doubled and it's now averaging seven charges a day at 23 minutes per charge: only 20% of the unit's capacity. At the current charging session growth rate, and assuming the average revenue per charge remains constant at \$4.50, the station's payback period (for both equipment and installation costs) will be just three years and it will be generating over \$1,000 in monthly revenue by January of 2015.

Meanwhile, HulaCar (an EV car sharing service located on site) and the Marriot are benefitting from the new business that the fast charger has attracted. EV drivers who stop to charge frequently make a purchase at the hotel snack bar, and the Marriot has increased its visibility and greened its image by achieving TripAdvisor's GreenLeader status. HulaCar is able to hand over EVs to new customers more quickly, effectively increasing the utilization of its fleet.

Contact Us

To learn more about ChargePoint solutions for retail and fast charging, call us at +1.408.841.4500 or +1.877.370.3802 (US toll free), or email sales@chargepoint.com.

About ChargePoint

ChargePoint is the largest and most open network of independently owned charging stations in the world. Recognized by Pike Research as the #1 ranked global EV charging provider, ChargePoint provides everything station owners need to deliver turnkey charging services in their parking lots. For drivers, ChargePoint provides state-of-the-art features including the ability to locate, reserve, and navigate to unoccupied charging stations with online tools and mobile applications for iPhone and Android.

