



Electric Vehicle Fast Charging Corridors

Groveland Community Services District

February 13, 2017

The World's Largest EV Charging Network



Largest Community of EV drivers

- + 250,000+ EV Drivers
- + A driver plugs into the ChargePoint network every 4 seconds



Charging Everywhere

- + 6,000+ companies
- + 400+ DC ports on the network



We're Established and Growing

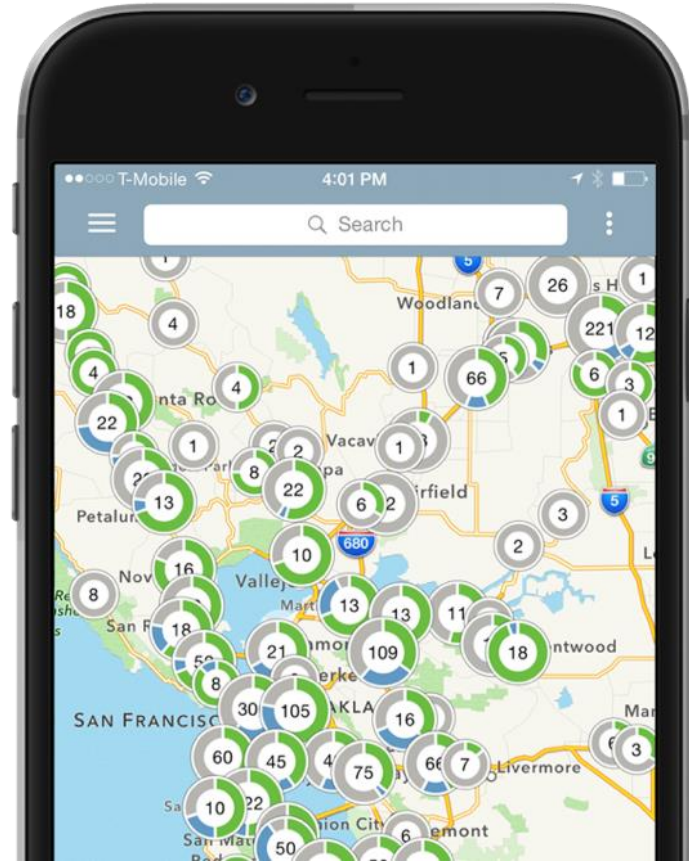
- + \$165 million in funding
- + 70%+ share of commercial smart charging

We Are the Industry Leader

According to Time, Bloomberg, CNBC, Navigant Research and many others

Drivers Choose Us Because

- + With over 32,000 charging spots, we're the largest EV charging network in the world
- + Our free mobile app helps them find available stations, start charging and more
- + We partner with automakers for a seamless driving and charging experience
- + **Any driver in any car can use ChargePoint**



Our Accolades

The United Nations Recognizes ChargePoint for Leading the Way

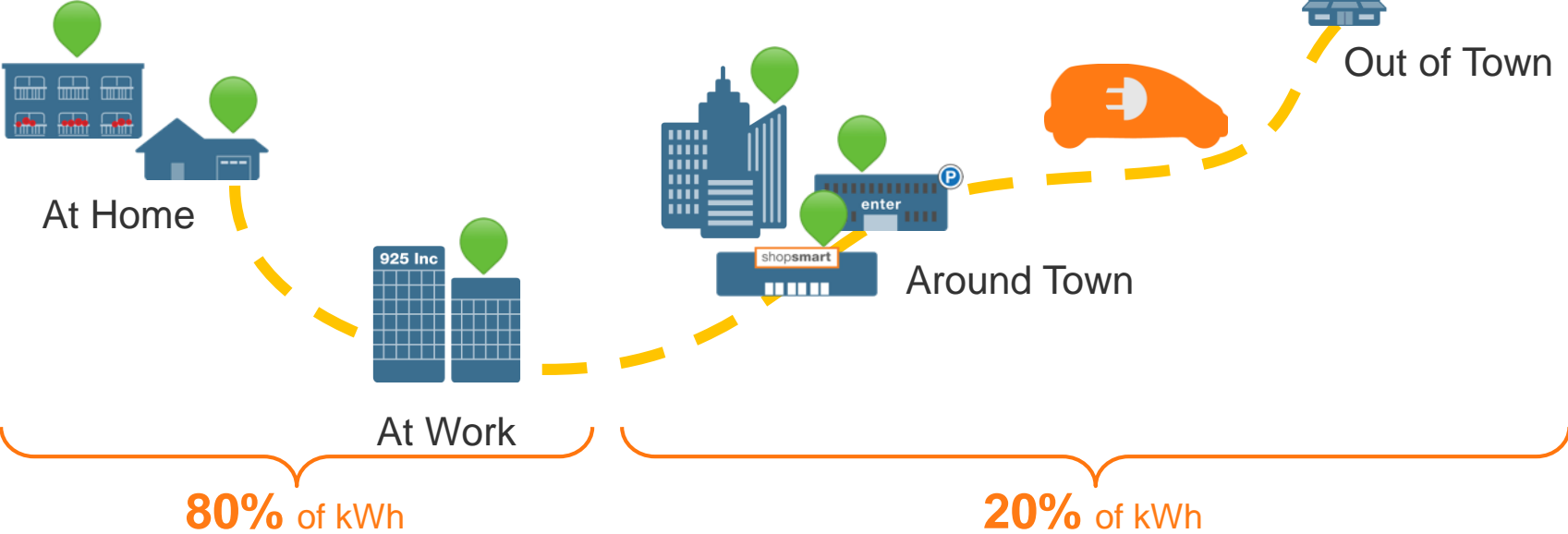
In 2015, ChargePoint was one of 16 companies from around the world to win The United Nations Momentum For Change award in recognition of our innovative and scalable approach to tackling climate change.



**MOMENTUM
FOR CHANGE**



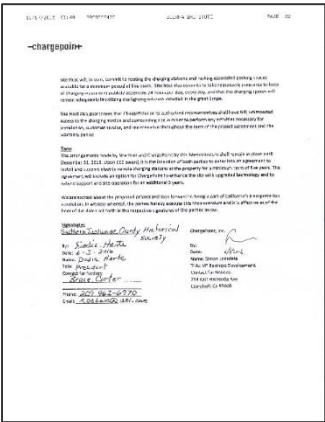
EV Charging Happens Where Life Happens



The Project Puts the Groveland Museum On a list of the World's Best-Known Brands with EV Charging

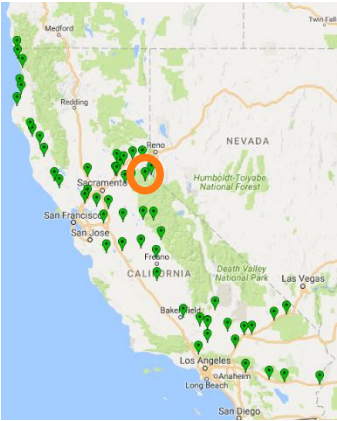
Workplace	Retail	Parking	Hospitality	Multi-family	Energy	Fleet	Municipalities	Education	Healthcare
<p>P I X A R</p>									

California Energy Commission Grant Overview



June 2016

Groveland Museum provided commitment letter to be considered for CEC grant along with ChargePoint to install EV Charging stations on site



October 2016

ChargePoint awarded all 15 corridors (54 sites) to create a connected network of high speed charging in California with valuable site partners, including the Museum



January 2017

Museum Board chooses “Option 1” as preferable for the project as it adds parking; **GCSO owns the easement!**

Electric Vehicle Charging Project Overview



Sample site rendering

+ Proposed Scope of Work for Initial Install:

- (2) ChargePoint Express DC Fast Charging Stations
- (1) ChargePoint CT4000 dual port Level 2 Charging Station
 - Serves all electric vehicles, including Tesla
- 100% of installation costs, including new utility service and all permitting/engineering fees covered by the project and managed by ChargePoint
- Project includes on site and on-freeway signage provided by Caltrans
- ChargePoint will also “future-proof” the install to include wiring/conduit for additional DC Fast Charging Stations
 - (8-10) total parking stalls licensed to account for future growth
- (7) year initial term for site license with (7) year renewal
- ChargePoint carries their own insurance and maintains stations under the Assure program under a site license agreement with Museum/GCSD

+ Museum/GCSD responsibilities:

- Making the charging stations available 24/7/365 to all guests
- Dusting down of the stations during routine parking lot clean up



DC Fast Charging Station



Level 2 Charging Station

Just Introduced - Express Plus Station



+ Power Capabilities

- Standalone supports 2 power modules to deliver up to **62.5 kW**
- Two stations can share power for 125kW available to either
- Power level can be augmented by sharing with nearby Power Cube with up to 16 more modules
- Capable of 400 A max @ 1000 V max (up to 400 kW output!)

+ Aesthetically pleasing, functional design

- Dual Displays (10" LCD w/touch for interaction, 20" LED display for status/notification)
- Light weight, flexible, liquid-cooled cables with cable management
- 1 to 3 Connectors from the following types: CCS Type1, CCS Type2, CHAdeMO, GB, and others on an as needed basis

+ Future Proof Technology

- Add power cube with more shared power when needed
- Standardized power modules in stations and cubes
- License plate detection, occupancy detection, vehicle identification etc.



Business Decision Behind Site License Format

+ CEC asking for one entity owning all awarded corridor locations

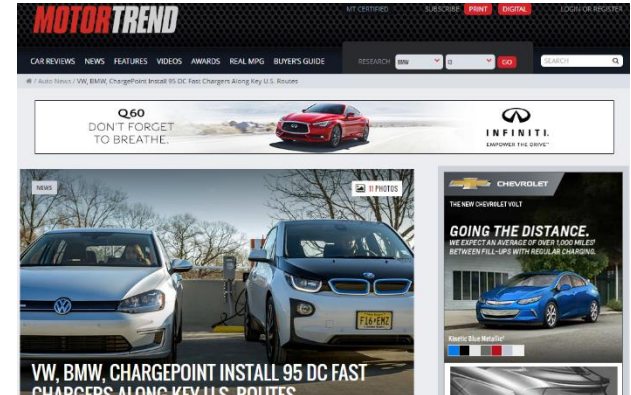
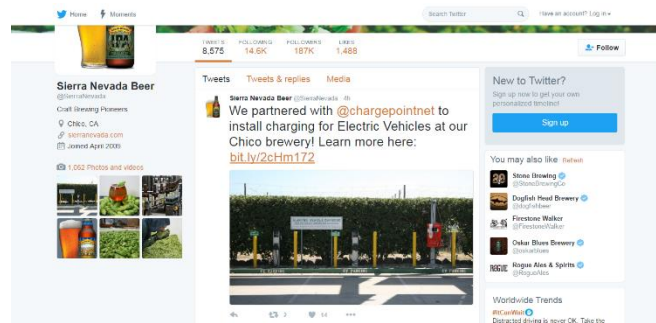
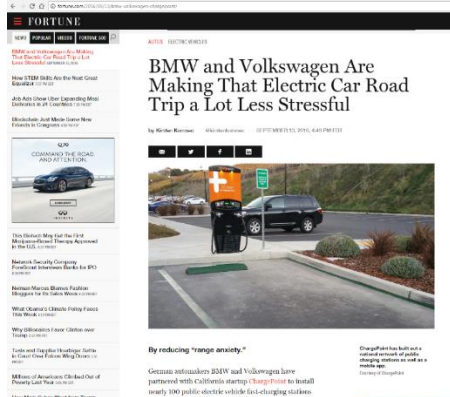
- Ensure one entity is responsible for meeting 7 year commitment to State of California
- Avoid individual site hosts shutting down locations because they are not recovering costs
- Enable aggregation of costs between multiple locations (accounts for variable utilization)
- Ongoing demand charge exposure:

Equipment Scope	PG&E Rate	Monthly Demand & Meter Charge*	Yearly Demand & Meter Charge*	Qty of EV Sessions per Month to Break Even (\$4.50/ Session)
(2) 50kW DC Fast Chargers	A10	\$1,780	\$21,360	396
(4) 62.5kW DC Fast Chargers	A10	\$3,575	\$42,900	795
(12) 62.5kW DC Fast Chargers	E19	\$21,412	\$256,936	4758

*Does not include energy charges (kWh)

Key Takeaways for GCSD

- + Electric vehicle usage is increasing but utilization is not expected to provide payback for at least another 6-7 years
- + **GCSD can choose to grant the Museum the easement or enter into the site license agreement with ChargePoint**
- + CEC has allocated the project for Groveland – before working with private site hosts, we want to offer the project to the Museum as a point of economic benefit for the Historical Society
 - Benefits local sales tax, improves local air quality, and brings a highly visible marketing program sponsored by the State to the property
 - Examples of press received for the BMW/VW Express Corridor in California below:



We Look Forward to Working With You!

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