



# Market Dynamics Players, Roles and Profitability

California Energy Commission and UC Davis

Joint Workshop

April 26, 2016

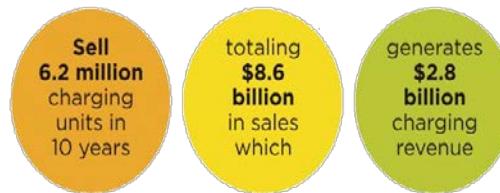
Colleen Quinn, Vice President, Government Relations and  
Public Policy

# Multi-Billion Dollar Industry

- + Globally, more than 50 companies make up the car charging industry
- + While 70-85% of car charging is done at home, public charging is a key enabler for mass adoption
- + All of EVCA's members have a substantial footprint in California, and a strong presence in San Francisco and Greater LA
- + Assuming California maintains 40% of the U.S. electric vehicle market, the car charging industry could generate \$4.5 billion in unit sales and services by 2023.

## Growth In America

For the **ten year period** from 2014 to 2023, the electric vehicle charging industry in the United States is projected to **sell 6.2 million charging units**, generating **\$8.6 billion in revenue**. Over that same period, the industry is projected to generate **\$2.8 billion in charging services revenue** in the United States. California will lead this growth.



Source: Navigant Research, "Electric Vehicle Charging Services" Q1 2015

# Innovative Technologies and varying business models

**PLUGLESS**

**-chargepoint**

Plugless is the first wireless EV charging station for sale in the world.

Based in Campbell, California, ChargePoint is the largest EV charging network in North America, with over 22,000 ports. ChargePoint manufactures stations, allows other charging hardware to run on its network, and provides cloud software and support.



Launched in 2010, NRG EVgo is the largest provider of direct current (DC) fast charging in America. In California, EVgo is the only provider offering the ability to charge any EV on the road at their Freedom Stations.

Envision Solar, based in San Diego, creates solar-powered products for the EV charging industry. Envision's EV ARC™ is the world's only transportable solar-powered charging station.



**VOLTA**

Volta deploys networked chargers at prominent and convenient venues, including shopping centers and entertainment districts, with free charging to drivers and free installation and maintenance for life to site owners.

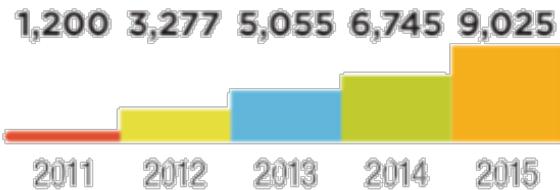
# California: leading the way for the rest of the country

- California has been the nationwide leader in charging infrastructure deployment
- 20,000 charging outlets, including public, private and residential outlets.

Growth in Electric Vehicle Charging Outlets



Charging Outlets in California 2011-2015:

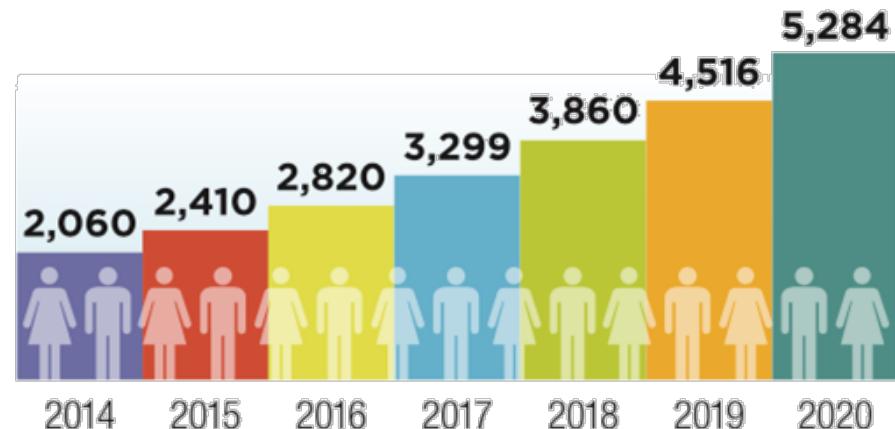


Sources: U.S. Department of Energy, Alternative Fuels Data Center (<http://www.afdc.energy.gov/data/18332>) and ([http://www.afdc.energy.gov/fuels/stations\\_counts.htm](http://www.afdc.energy.gov/fuels/stations_counts.htm)) As of 8/12/15.

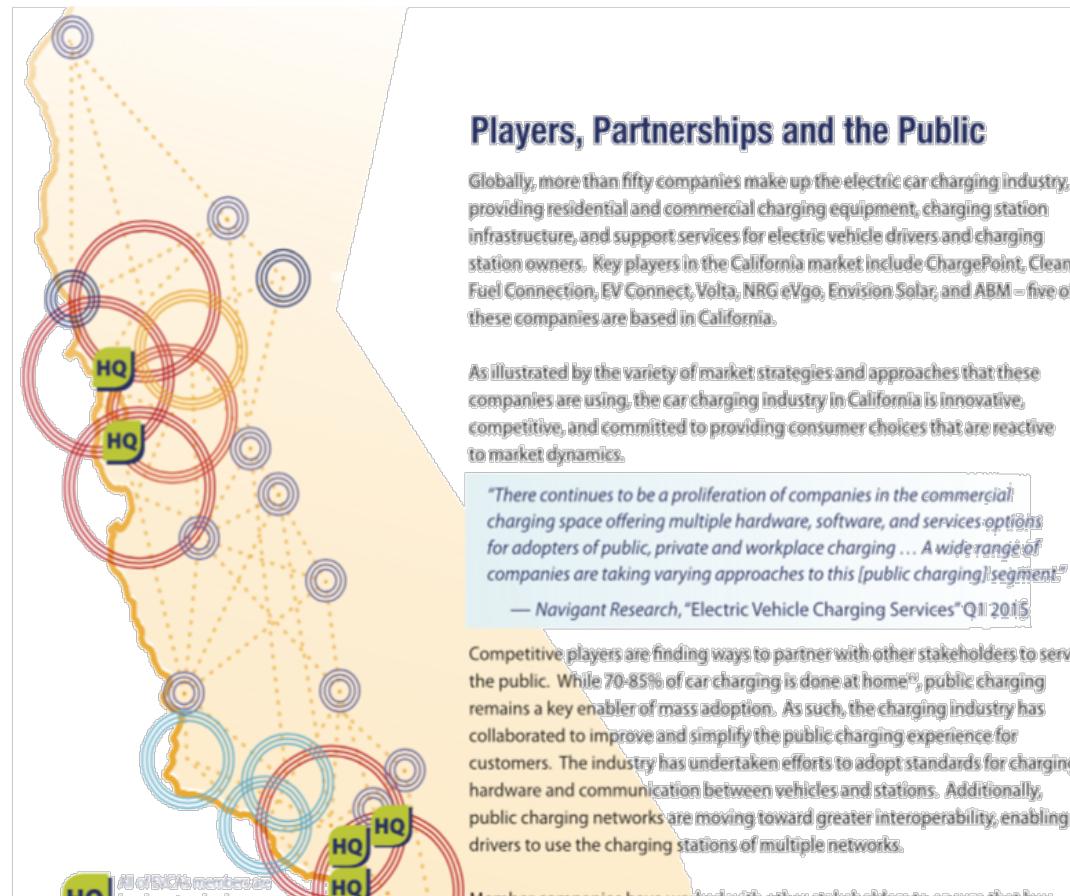
# Economic Impact in California

- Collectively, more than 2,000 California jobs are attributed to the electric vehicle charging industry
- The vehicle charging industry has the potential to bring an additional 3,200 jobs to the state by 2020

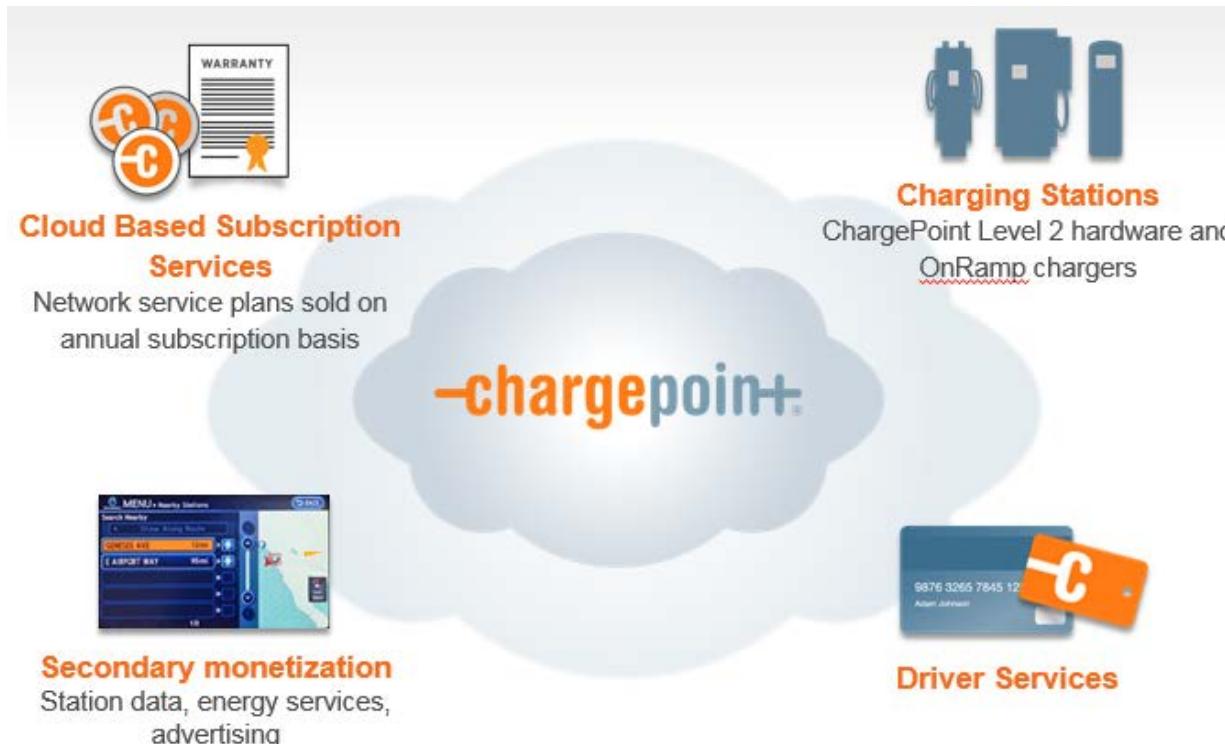
Electric Vehicle Charging Industry  
Employment 2014-2020:



# Players, Partnerships and the Public



# ChargePoint Business Model Components



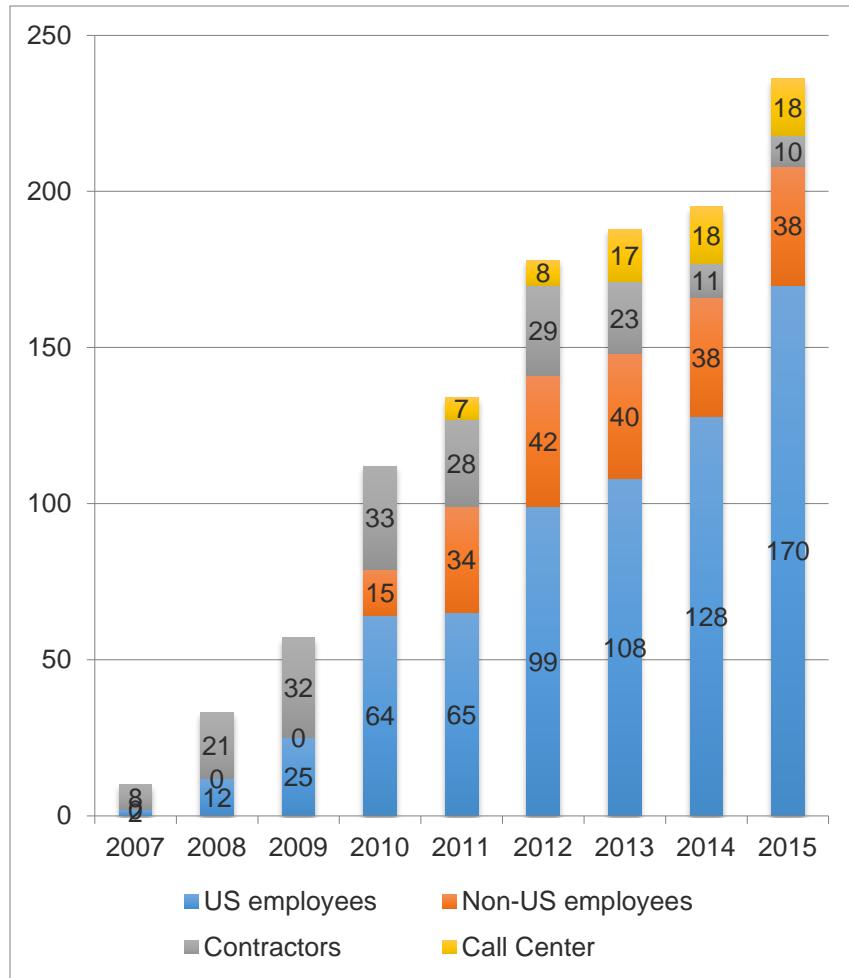
# Understanding the Customer Business Models

				
	Workplace	Retail	Parking	Municipality
Offering charging is good for your business	<ul style="list-style-type: none"> <li>+ Attract/retain talent</li> <li>+ Improve corporate image</li> <li>+ Meet sustainability goals</li> </ul>	<ul style="list-style-type: none"> <li>+ Attract/retain high value customers</li> <li>+ Improve corp. image</li> <li>+ Engage in sustainability</li> </ul>	<ul style="list-style-type: none"> <li>+ Attract customers</li> <li>+ Enhance revenue</li> </ul>	<ul style="list-style-type: none"> <li>+ Engage in sustainability</li> <li>+ Improve image</li> <li>+ Drive local jobs</li> </ul>
The Objection	Upfront cost, ROI	Cost, ROI	Cost, ROI	Cost
Overcoming the objection	Use ChargePoint's cloud based SW to bring you revenue, new customers, and new tenants. Use our lease program to avoid upfront costs.			
Only with <b>Networked Charging</b> can you...	<ul style="list-style-type: none"> <li>+ Control who charges on your stations, and when</li> <li>+ Set specific pricing for each and every driver</li> <li>+ Provide real-time station availability</li> <li>+ Manage driver behavior</li> <li>+ Receive comprehensive driver services</li> </ul>	<ul style="list-style-type: none"> <li>+ Remotely monitor station usage and operation</li> <li>+ Generate needed reports on usage data</li> <li>+ Manage ROI, energy costs, and other impacts</li> <li>+ Receive 24/7 remote support</li> <li>+ Enjoy easy self service managing</li> </ul>		
Key Benefit for your Drivers	5% raise and HOV lane access	Preferred parking and loyalty rewards	Preferred and dedicated parking spot	Charging while eating, shopping, working
Bottom Line for You	Win big with employees for a few dollars a day	Attract new customers who stay longer and spend more	Attract new customers and increase revenue per per parking spot	Make money while serving residents, helping downtown retail and being green

# Market Knowledge and Experience

Workplace	Retail	Parking	Hospitality	MDU	Energy	Fleet	Municipalities	Education	Healthcare
 	 TARGET	 SYLVAN PARKING	 THE RITZ-CARLTON	 KELLER GROUP LIMITED	 AUSTIN ENERGY	 connect by Hertz	 CITY OF SAN JOSE	 STYLIZED S	 UCSF
 AAA	 KOHLS expect great things	 WHOLE FOODS MARKET	 InterPark	 Marriott	 CenterPoint Energy	 POLICE DEPARTMENT CITY OF NEW YORK	 NYC.gov always open	 HARVARD	 BOSTON UNIVERSITY SCHOOL OF MEDICINE
 DELL	 GM	 PARK FAST	 Holiday Inn	 THE TOWER COMPANIES	 mgoe	 Hydro Quebec	 Los Angeles Department of Water & Power	 SEAL OF THE CITY OF SANTA CLARA, CALIFORNIA	 BRIGHAM AND WOMEN'S HOSPITAL
 Google	 Walgreens	 parking	 Sheraton Centre Toronto HOTEL	 TGI	 toronto hydro	 CITY OF VANCOUVER	 Los Angeles Department of Water & Power	 MASSACHUSETTS INSTITUTE OF TECHNOLOGY	 SWEDISH Edmonds
 Microsoft	 SAFeway	 NETFLIX	 Disney	 Equity Residential	 P&G	 NYC.gov always open	 SEAL OF THE CITY OF ORLANDO	 UNIVERSITY OF CALIFORNIA, LOS ANGELES	 CHELSEA COMMUNITY HOSPITAL
 SAP	 NASA	 McDonald's	 HYATT REGENCY	 Avalon COMMUNITIES	 OUC The Reliable One	 Los Angeles Department of Water & Power	 WASHINGTON DC	 COLUMBIA UNIVERSITY CLUB	 UC Irvine Health
 MasterCard	 STOP & SHOP	 PARK & BARK	 STARWOOD HOTELS & RESORTS WORLDWIDE, INC.	 UDR	 ESB	 National Grid	 Google	 SEAL OF THE CITY OF SACRAMENTO	 THE GEORGE WASHINGTON UNIVERSITY
 PIXAR	 SOUTH COAST PLAZA	 SEVEN 117 SEVEN PARKING ENTERPRISE	 Best Western	 PARC HURON	 DUKE ENERGY			 CROWN	 JOHN MUIR HEALTH
 Consumer Reports									

# ChargePoint Job Growth



## Channel Partners: Small Business Growth

East	45 Partners
Northwest	10 Partners
Southwest	11 Partners
National	2 Partners
<b>Total</b>	<b>68 Partners</b>

