



Long Term Vehicle Charging Plans

April, 2014

The ChargePoint Network



3.8 Million
gallons of gas avoided



28,000,000
pounds of CO₂ avoided



91,000,000
gas-free miles driven



1,900+
organizations use
ChargePoint



70%
market share



30,400
megawatt hrs of
energy dispensed



35%
of EV drivers carry
a ChargePoint card

*Every 9 seconds, an EV driver charges
at one of our 16,500 stations*



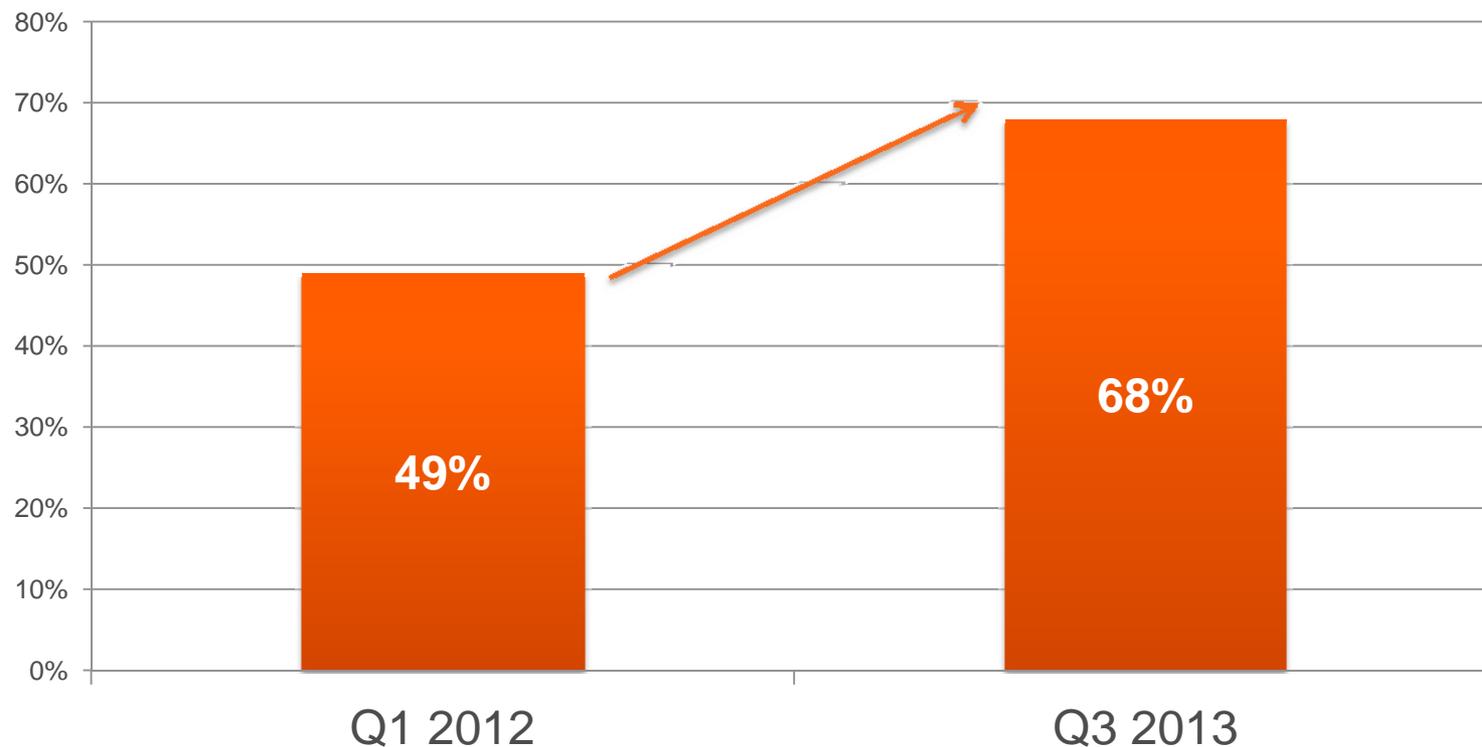
Charging Services will Increase in Importance

- + Charging Stations
- + Billing Software
- + Reservations
- + Smartphone Apps
- + Advertising
- + Authentication
- + Asset Management
- + Energy Management
- + 24/7 Driver Care
- + Station Owner Care
- + Monitoring & Statistics
- + Remote Maintenance



Networked Charging Becoming Dominant Model

Market Share of Networked Public Charging

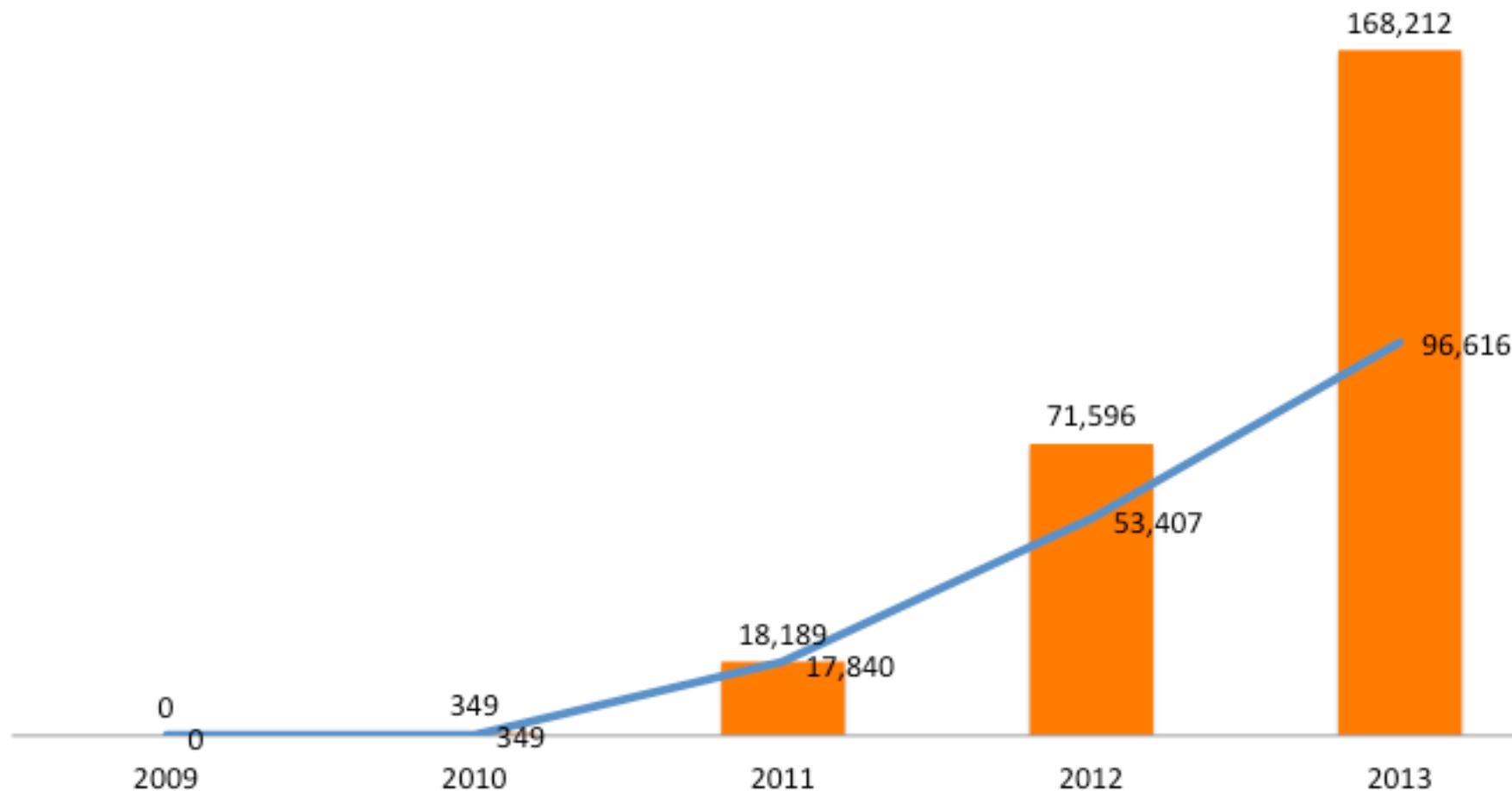


Charging Service Models

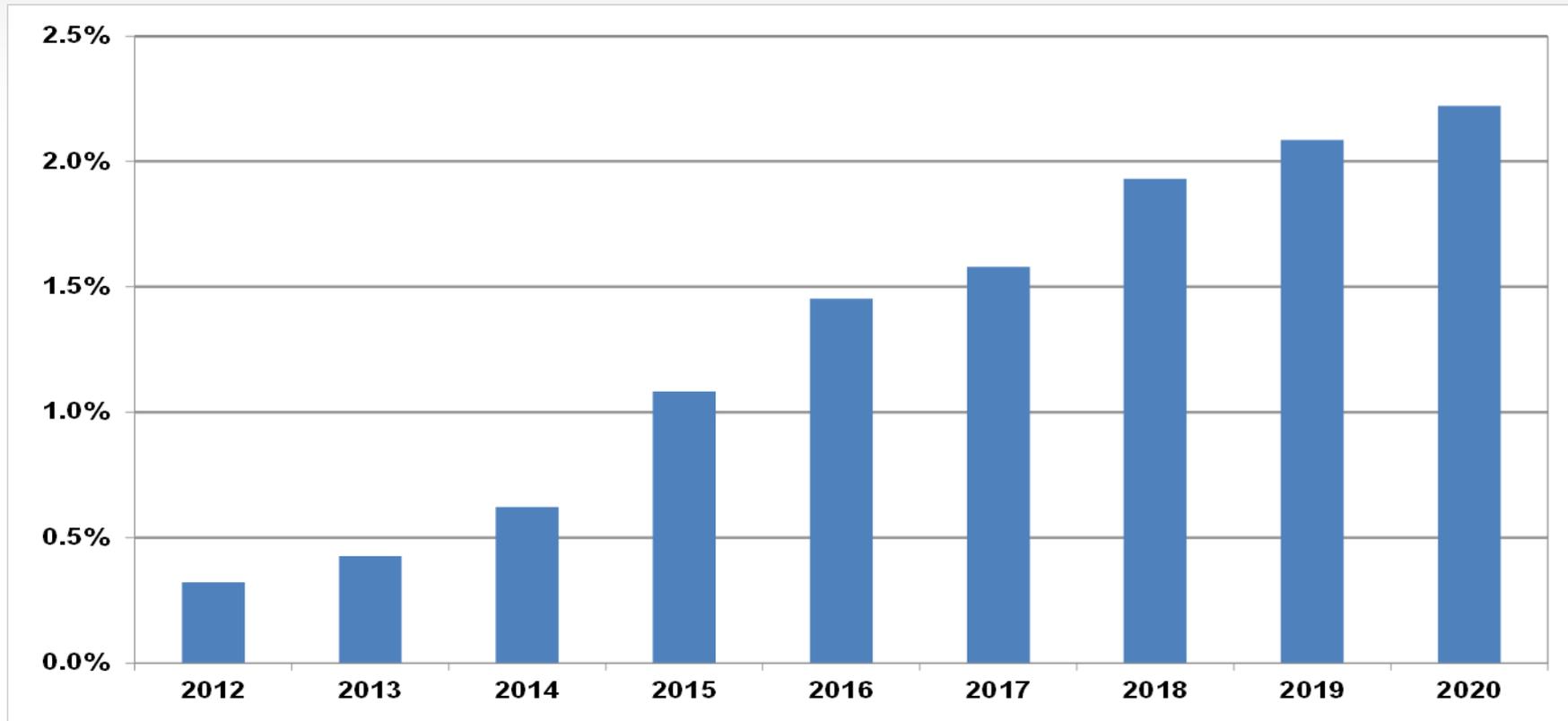
Business	Cost Plan	Value Prop
Workplace	Subsidized	\$550/year to retain an employee
Workplace	Paid	Employee pays \$2 a day
City	Cost recovery	Resident pays \$1 a charge
Apartment building	Vending Machine	6 year payback, then \$1000 a year income
Pure service provider	Subscription business	\$60/month, 6 year payback
Hotel	Amenity	\$550/year to attract guests
Retail	Amenity	\$1 subsidy to bring in a customer

The Electric Vehicle Market is Growing Quickly

■ Plug-in vehicles cumulative
 — Plug-in vehicles sold



California has Initiated Dramatic EV Car Adoption across the US!

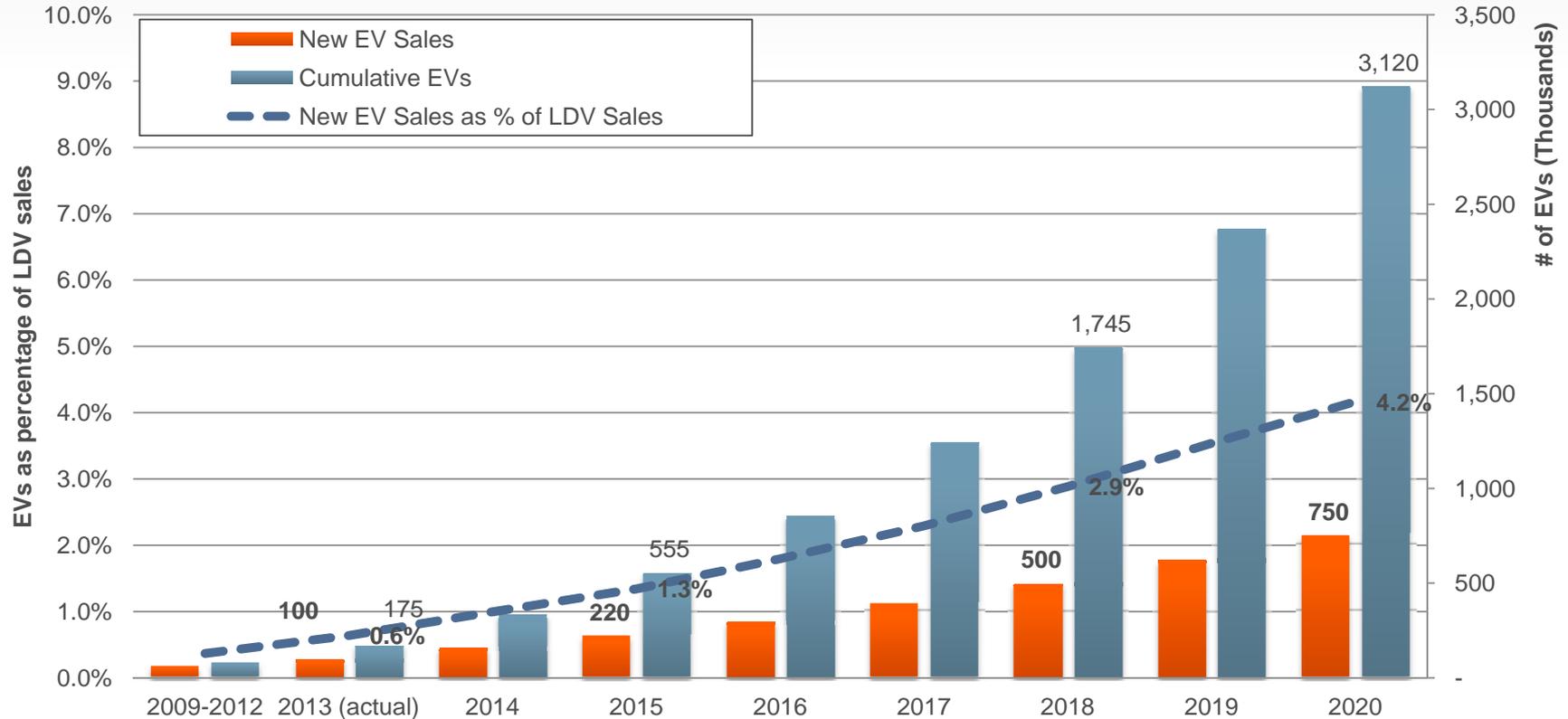


According to Pike, by 2020 2.4% of total Light Vehicles are expected to be PEVs

In California year-to-date, PEV sales have already eclipsed the 2.5% mark!

And Growth will Continue

Electric Vehicle Market: USA 2012-2020



	2009-2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Light Duty Car Sales									
LDV Sales - Pike Research	14,925,097	15,622,301	16,057,614	16,378,767	16,689,161	17,005,591	17,330,805	17,663,771	18,004,053
New EV Sales	55,000	100,000	160,000	220,000	300,000	390,000	500,000	625,000	750,000
New EV Sales as % of LDV Sales	0.4%	0.6%	1.0%	1.3%	1.8%	2.3%	2.9%	3.5%	4.2%

Forecasting Attach Rate to 2020

Analysis by Vertical (long-term cumulative attach rate)

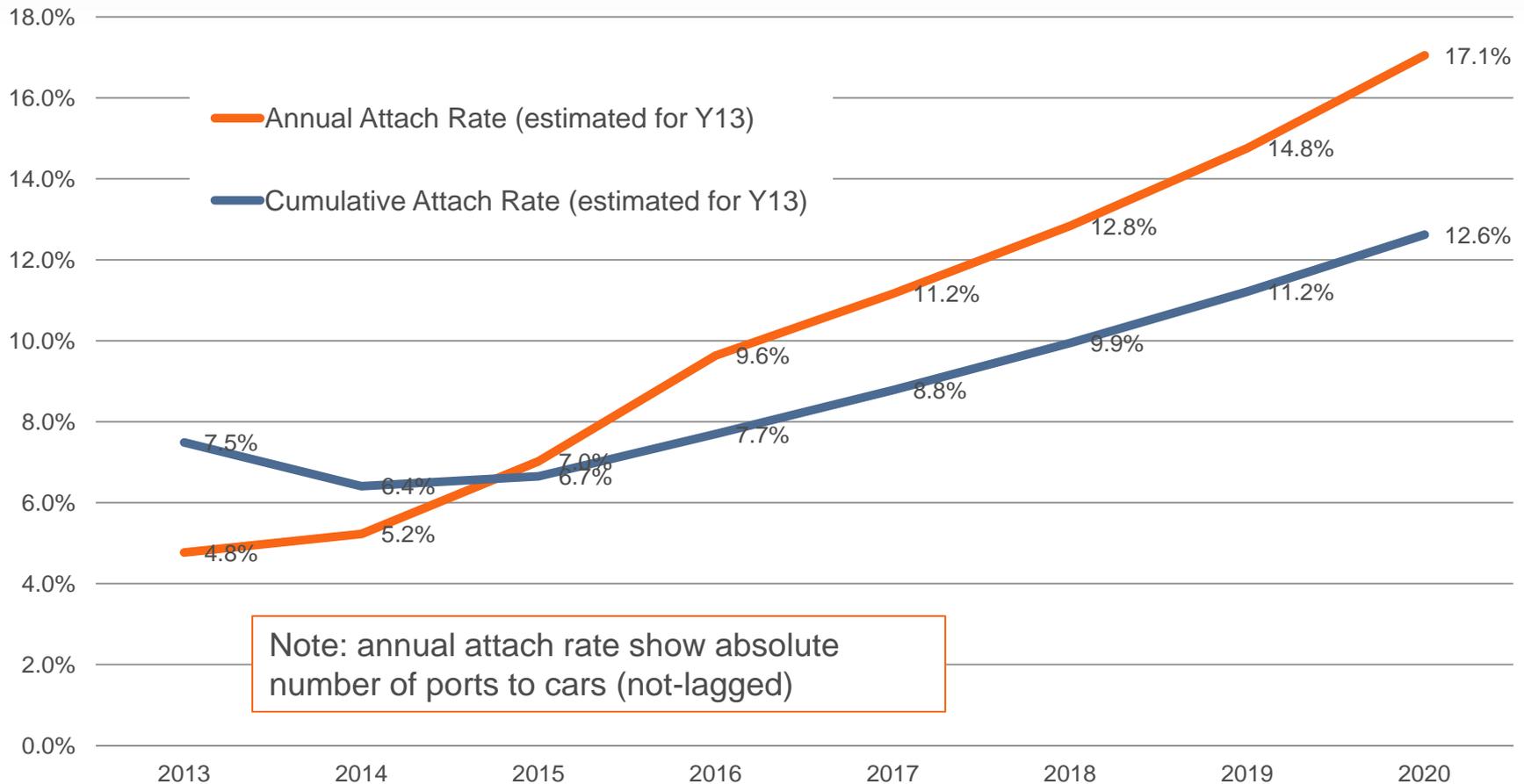
- + Based on expectation of long-term industry attach rates by vertical, we can forecast our cumulative attach rate based on an 85% networked market and 65% CP market share

	Expected Share of US Total Industry	Expected Long-Term Cumulative Attach Rate	Weighted Avg Cumulative Attach Rate (Industry)	Weighted Avg Cumulative Attach Rate (ChargePoint)
Workplace	45%	25%	11.25%	6.22%
MDU	20%	50%	10.00%	5.53%
Municipality	15%	5%	0.75%	0.41%
Parking	10%	10%	1.00%	0.55%
Hospitality	5%	5%	0.25%	0.14%
Retail	5%	5%	0.25%	0.14%
TOTAL	100%		24%	13%

Forecasting Attach Rate

ChargePoint Annual and Cumulative

ChargePoint Attach Rates

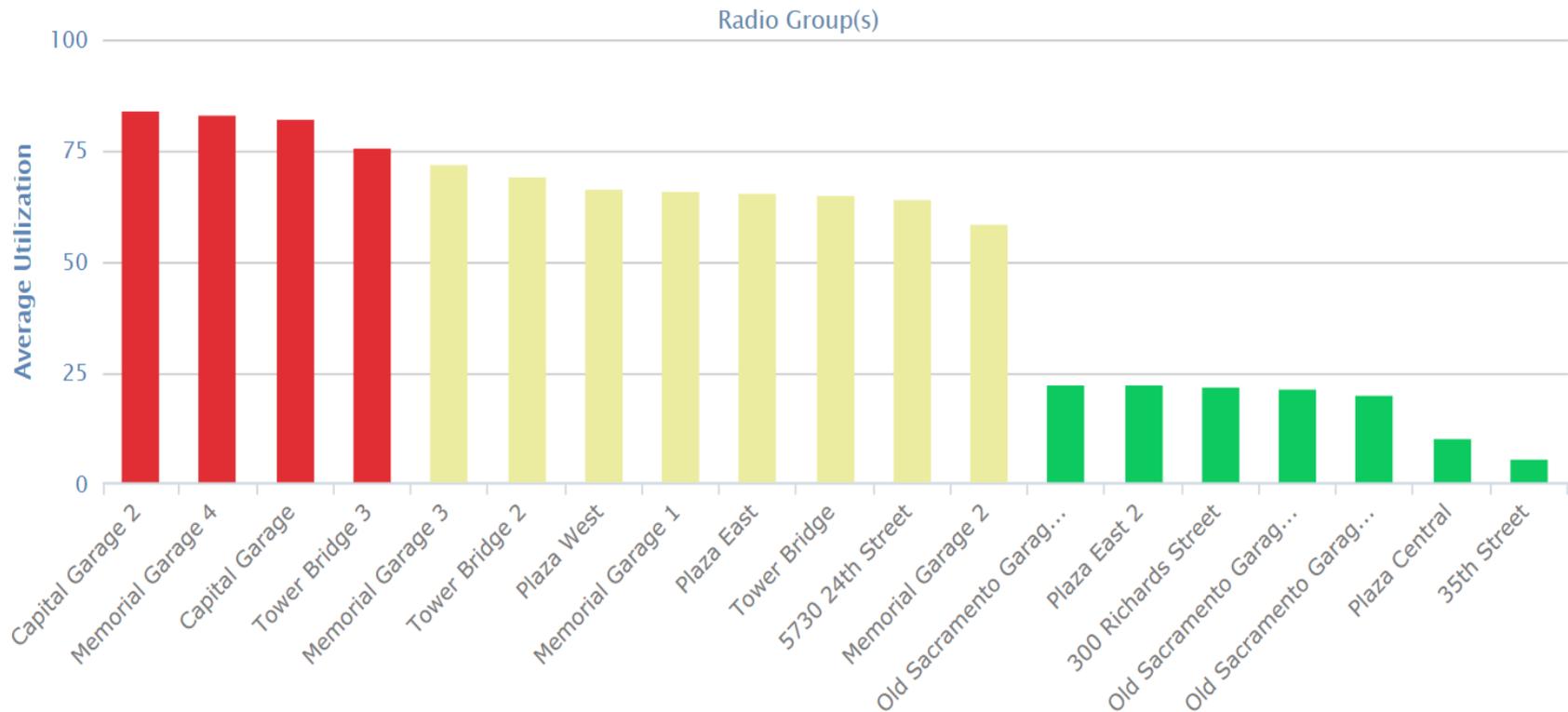


Forecasting Attach Rate

Profile of Station Utilization – Location Matters!

Back

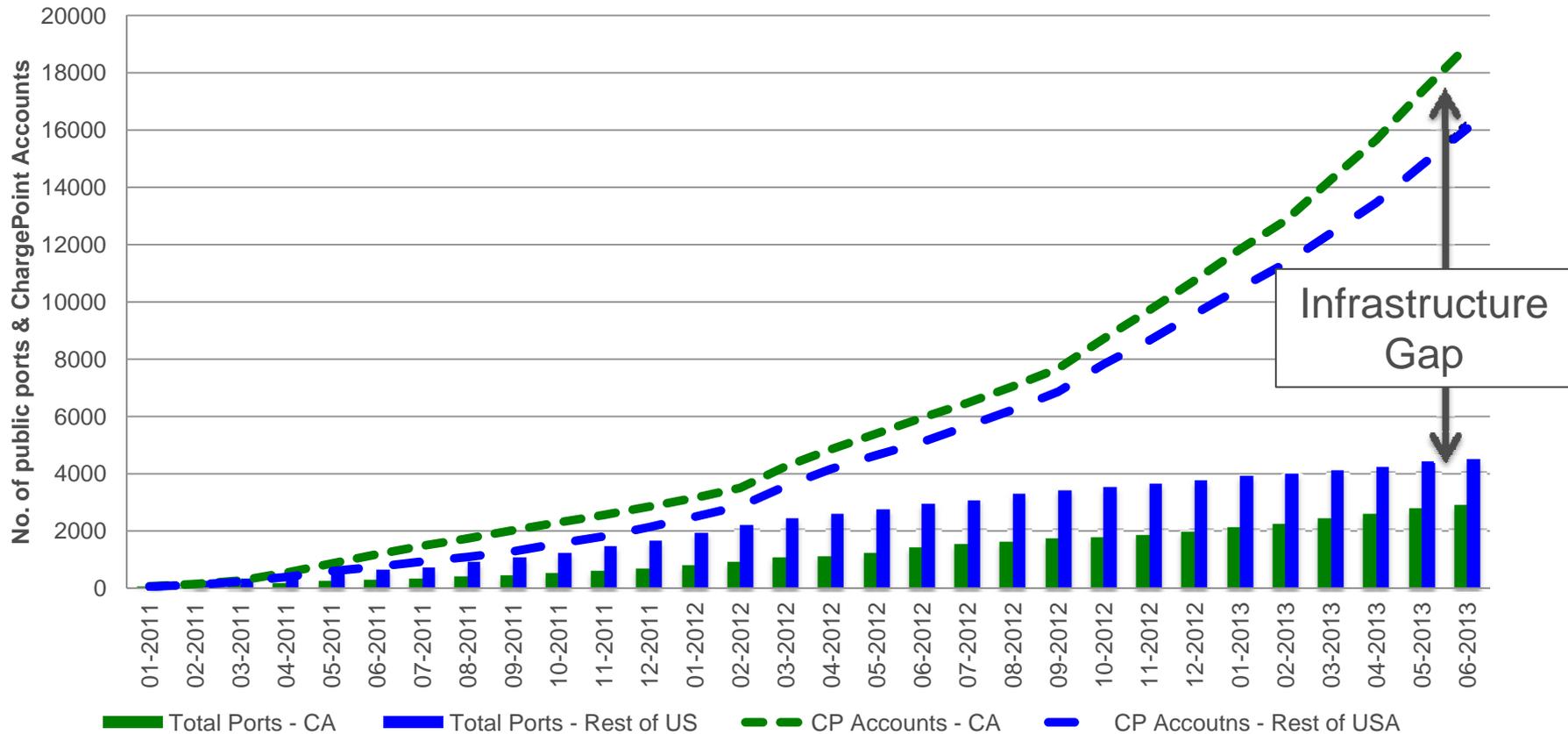
City of Sacramento Average Utilization Last 30 Days



- Utilization characteristics of our leading customers are indicative of future potential
- Location drives utilization! Poorly located ports distort utilization trends.

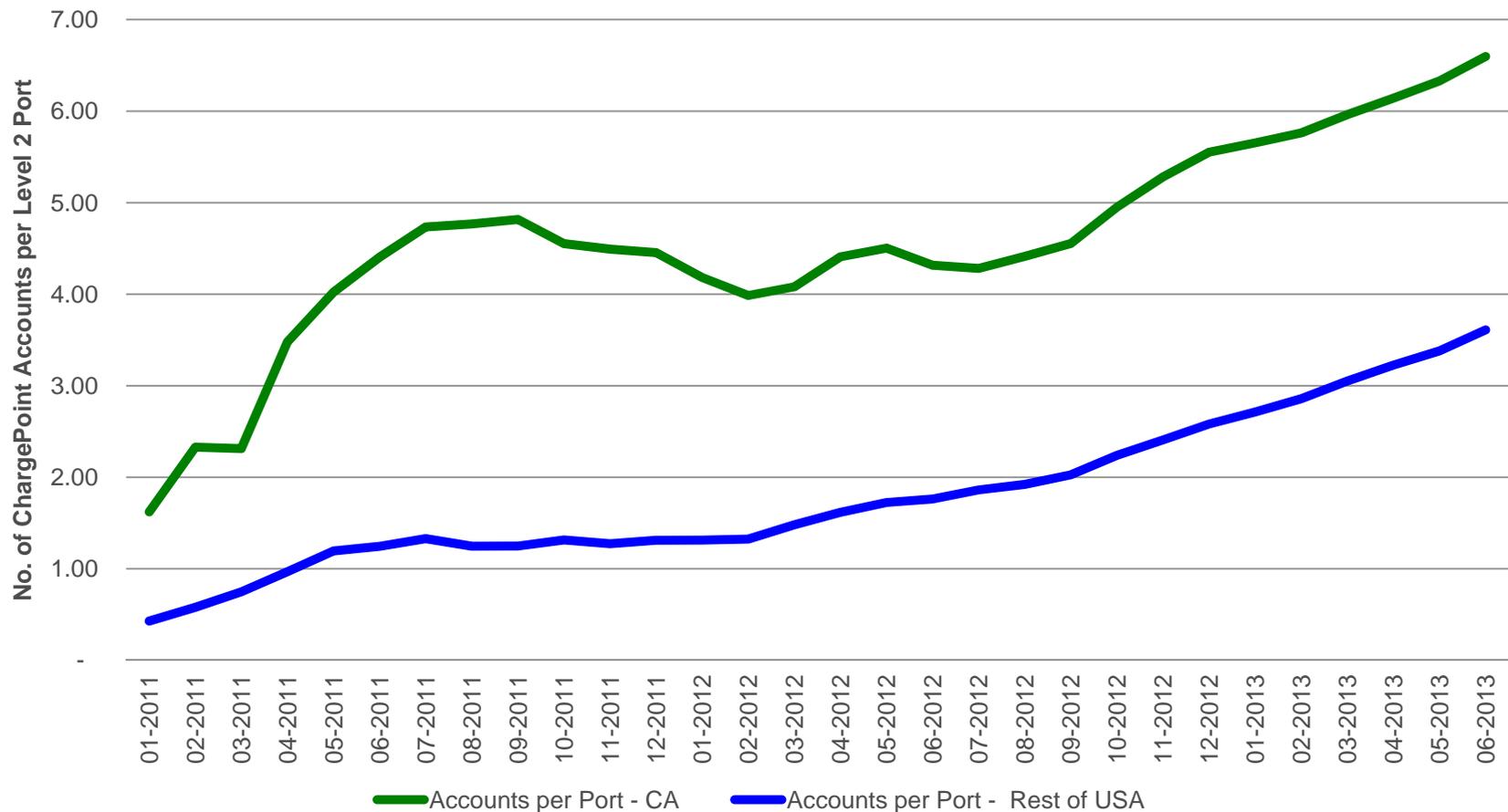
Public EV Infrastructure is not keeping up with EV Adoption

Rise in EV Drivers Outpaces Available Ports



Consequently, Public Ports are Increasingly Over-Utilized

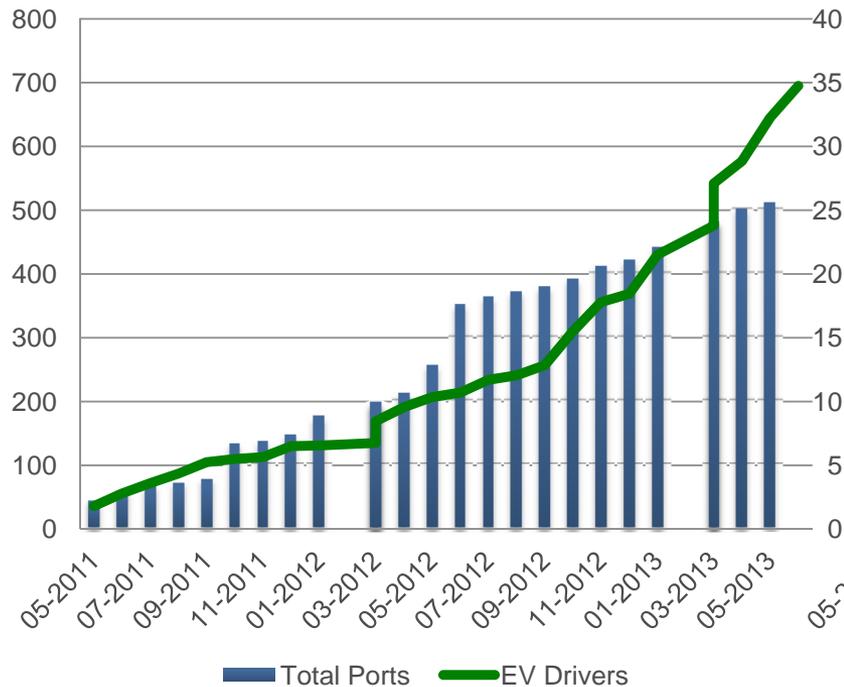
+ *Current attach rate (EVs per port) in CA is ~7:1*



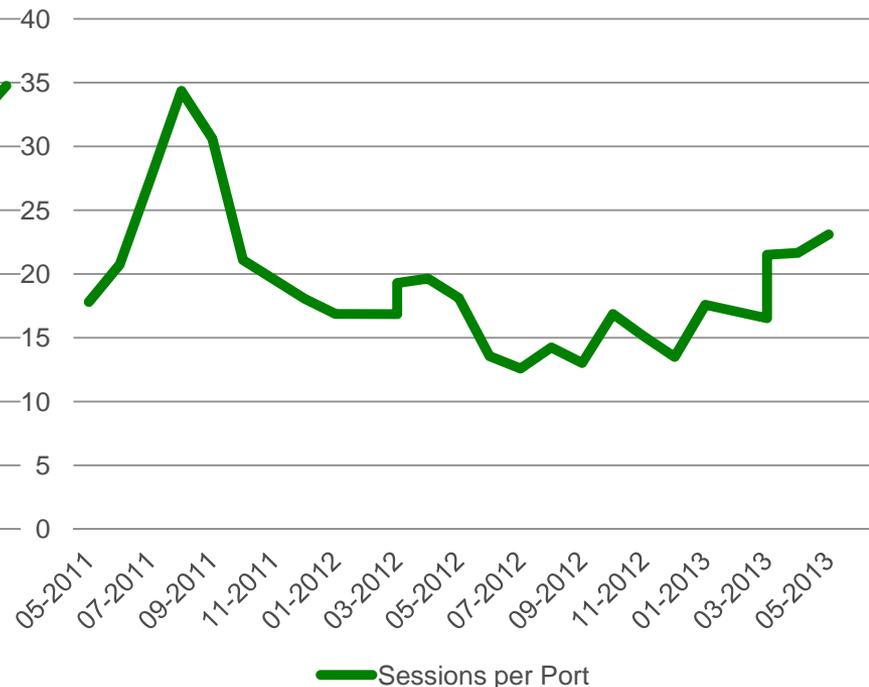
Case Study: Major CA Workplace Customer

+ Infrastructure investment stimulates EV adoption!

If you build it they will come...



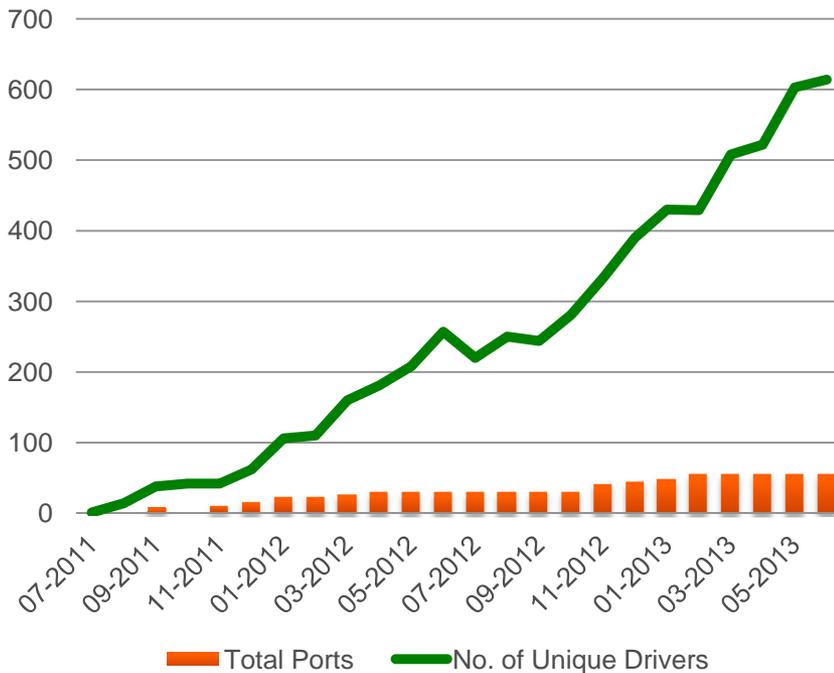
and ports will still be used everyday



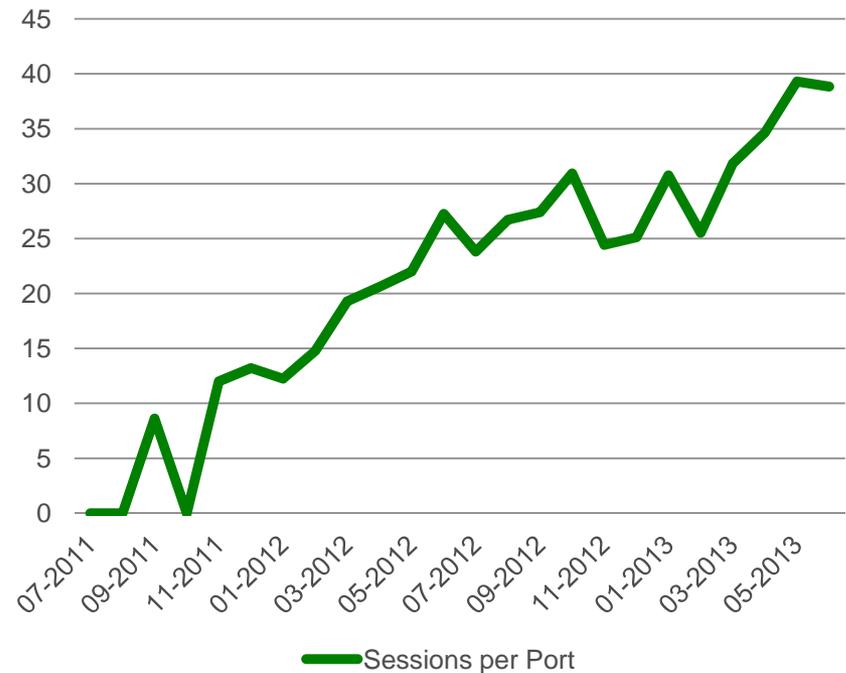
Case Study: Major CA Airport

+ *Illustration of typical customer utilization in our portfolio*

CA Airport experiences more and more EV drivers...



and ports are reaching capacity



Quantifying California’s EV Infrastructure “Gap”

Attach Rate: Relationship between EVs & public EV ports—defined as # of “public” EV ports deployed per EV sold (“public” defined as non-single family residential)

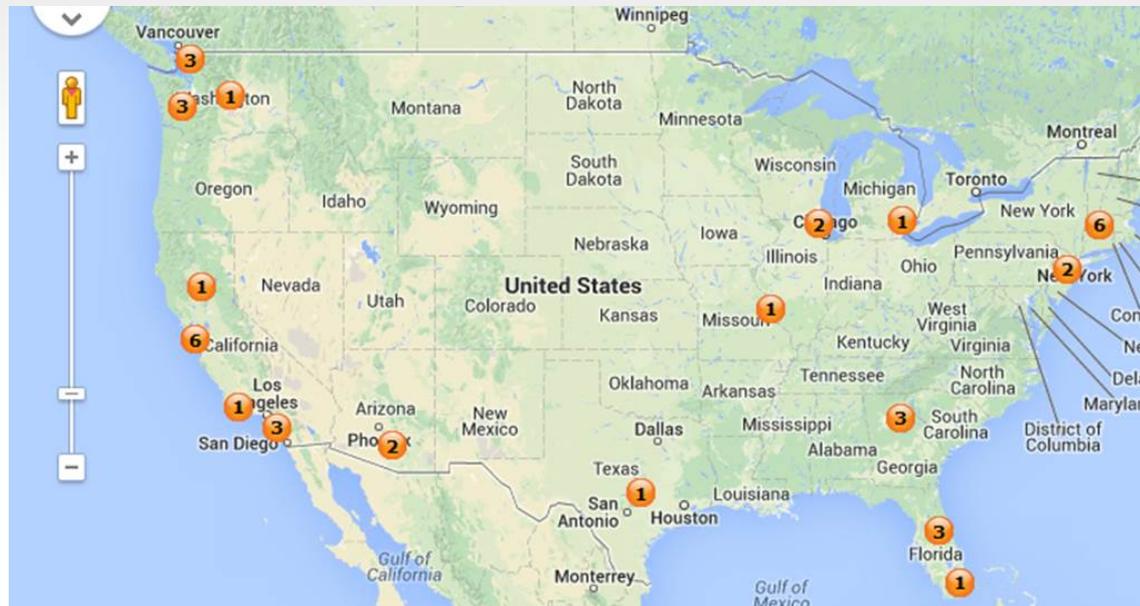
- **50% Attach Rate:** Short-term “target” rate to support rapid pace of EVs sold in next 5-10 years
- **15% Attach Rate:** Historical relationship observed in ChargePoint’s charging port portfolio, which has already generated complaints from EV customers regarding lack of public EV infrastructure
- **5% Attach Rate:** Unsustainable public EV infrastructure platform and will retard new EV adoption

Projected EV/PHEV New Car Sales Projected Growth (Cumulative Sales)

	2012 Registered EV Cars	2012 Public EV Charging Ports (# of Ports)	2015 Projected Cumulative EV Cars (Est # of cars)	Required 2015 Public EV Charging Ports(50% Attach)	2020 Projected Cumulative EV Cars (Est # of cars)	Required 2020 Public EV Charging Ports (50% Attach)
CA	29,640	4,348	90,625	45,312	442,895	221,448
US Total	76,133	17,203	391,672	195,836	2,006,143	1,003,072

Based on conservative Pike Research projections for EVs sold, California needs approximately \$1 billion in “public” charging ports by 2020!

DC Chargers



- + We're installing 1 a day in the US
- + They can pay their way except....
- + Demand charges are killers
- + Proposal in Hawaii is Demand Charges are waived if DR is implemented

Obstacles to Adequate Infrastructure

- + Landlords aren't interested
 - HOA, Apartment landlords, Business parks
- + Installations are expensive
- + Lack of adoption of HB 130
- + Lack of awareness of the inevitability of installing EVSE
- + Lack of awareness of scaling of EVSE
- + Lack of time pressure to deploy infrastructure
- + An expectation that the government will build the infrastructure
- + Energy Services market doesn't work
 - FR, DR, LCFS, Capacity Management
- + Still a lot of chicken and egg – parking garages, curbside

Opportunities

- + We need Dept. of Commerce help to proliferate HB130
- + If a business or a resident wants EVSE, they shall get it
- + Workplaces should have 1 port for every two EV's
- + Some people are doing it right
- + Awareness of the inevitability of installing EVSE
- + We need funding for make readies in HOA/Apartments
- + Methods for getting energy service money to flow
- + Leveraged financing

Thank You

www.chargepoint.com