

The Future of Fueling Infrastructure

Presented by:

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Clean Fuel Connection (CFCI)

- Edison EV
 - Edison International started a company to provide and install chargers for GM and other OEMs marketing EVs (1996)
- Sold and installed more than 7500 chargers
 - Residential
 - Workplace/Fleet
 - Public charging—shopping malls, markets, big box retail
- Contractor/preferred installer for Nissan, Honda, Toyota, Ford and GM
- Installed most of CA public charging
- Currently working on installing wall boxes for MINI E program

Why We Need Public, Workplace, and Fleet Charging

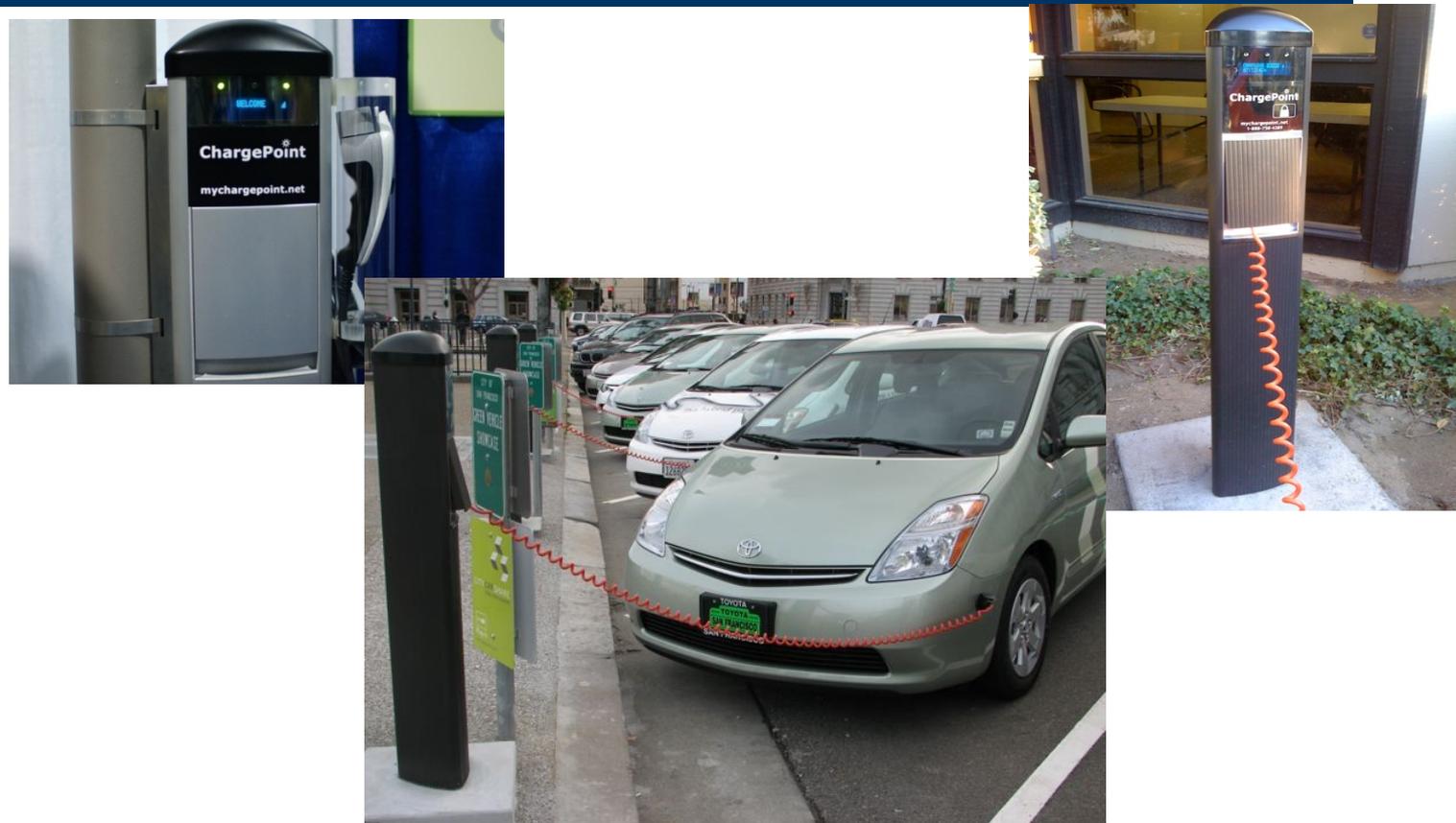
- Range Anxiety
- Maximize zero emission miles for plug-in hybrids like the Chevy Volt
- Plug-in vehicles are perfect for urban setting
 - Urban mobility—short trips
 - Interface with transit
 - Shared vehicles
- Many drivers do not have private garages
- Our historical data shows about 3:1 chargers to vehicles
- *Thank you* for including infrastructure in the AB 118 Investment Plan!!

Electric Vehicle Charging—the Past



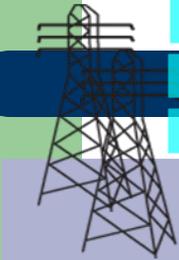
Electric Vehicle Charging: The Future

ChargePoint™ Charging Network

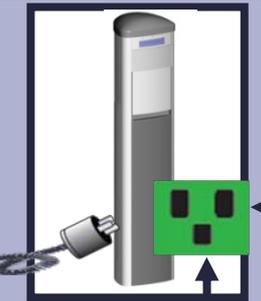


The ChargePoint™ Network

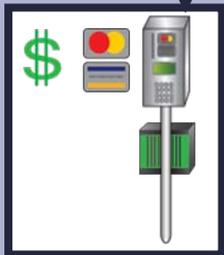
Smart Receptacle	802.15.4 Meshed LAN	Centralized Control
Energy Metering	802.15.4 to GPRS Gateway	Energy Policy Administration
Integrated Parking Meter		Billing and Reporting
Remote Payment System		Charging Station Inventory for OnStar and GPS Navigators
		Secured Portals for Hosts, Subscribers, and Utilities



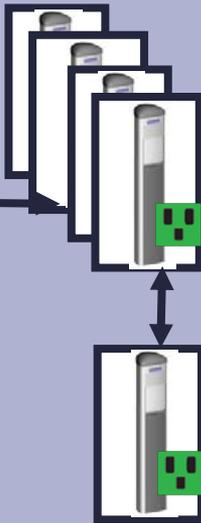
Zero technology impact on vehicle



Smartlet™ Charging Station

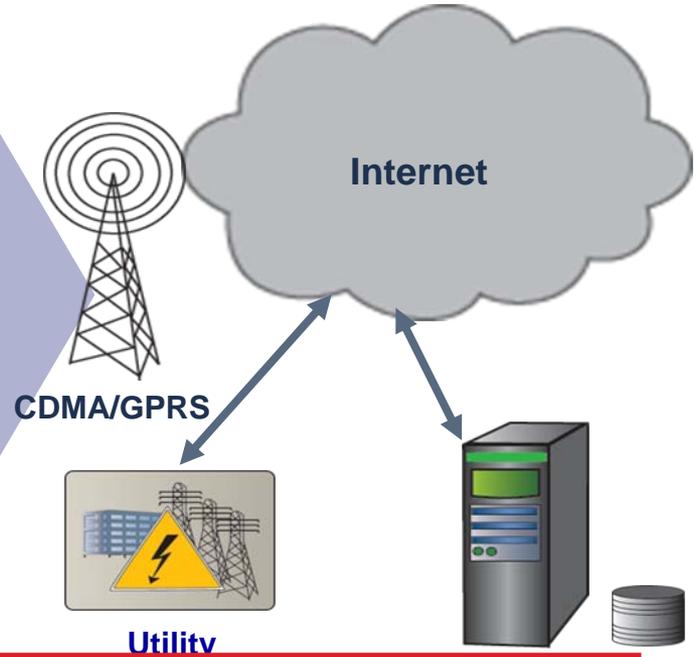


RPS w/ Gateway Functionality



Smartlet™ Charging Station w/ Gateway Functionality

Smartlet™ Communications Network



Networked Charging Stations + Wireless Networking + ChargePoint™ Network Server

network

MyChargePoint.net

ChargePoint™ Network Welcome Bret Lee / Logout

Home Alarm View Network View Provision Reports **Reports** FAQ Contact Us

Host Usage Report	Usage Report -- Group	
South Bay	Time Charged	50
Sunnyvale	Time Occupied	70
san Jose	Time Idle	45
Campbell	Time Oversubscribed	20
Los Gatos	Total Charge	200
san jose new		
Shel Ave		
San Jose Downtown		
smartDevices		
Los Altos		
Campbell Ave		
Los Gatos Downtown		
Columb Group		
East San Jose		
YahooGroup		
West San Jose		
East Campbell		
North San Jose		
Campbell_subgroup		

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ChargePoint™ Network

Network View Provision Reports FAQ Contact

Edit Device

Type: Smartlet

GUID: DEVICE00049

Location: [Set Location](#)

Latitude: 37.2527 [Set Location](#)

Longitude: -121.9 [Set Location](#)

System Time:

Firmware Version:

Status: Idle

Primary Parent: DEVICE00003

Enable Status:

Status Comments:

Device GUID v	Issue Details	Alarm Time	Alarm Count	
DEVICE00030	Operational 2	2008-07-07 18:14:53	2	View
DEVICE00023	Data 1	2008-07-03 18:15:08	5	View
DEVICE00005	Operational 1	2008-07-03 18:15:53	1	View

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Subscriber, Host and Utility Portals

Our Proposal

- Retrofit 500 stations in CA (50% cost share)
 - Equipment--\$1.2 m2
 - Installation--\$ 250,000
- Install 500 new locations (50% cost share)
 - Equipment--\$1.2 m2
 - Installation--\$750,000
- Total Requested \$ 3.4 m2

Current Status

- **Local communities are already helping identify locations and public/private sector partners**
- **Potential Partners (have had initial discussions and estimates)**
 - City of Pasadena (already committed and has applied for matching funds)
 - City of Santa Monica
 - City of San Francisco (applying for matching funds)
 - City of San Jose
 - City of Los Angeles
 - Hyatt La Jolla
 - Vetric dealer, Sonora
 - Dueco
- **And many other existing and new locations**

Expected Matching Funds

- Clean Cities funding applications
- DOE Transportation Electrification
- LA Metro Call for Projects (applied)
- 50% tax credit for refueling property—2009-2010 only
- Accelerated Depreciation
 - 50% bonus depreciation
 - 5 year accelerated depreciation

Thank you!

