



The leader in clean electric transportation

Corporate Overview

NASDAQ: ECTY

April 20, 2011

---

**blink**

# Safe Harbor Statement

As provided by the "Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995," ECOtality, Inc. cautions the audience that this presentation includes forward-looking statements. Actual results might differ materially from those projected in the forward-looking statements. Additional information concerning factors that could cause actual results to materially differ from those in the forward-looking statements in ECOtality's financial statements filed with the Securities and Exchange Commission.



# Overview

- Electric Vehicles are here and more coming
- Standards on evse are in place
- Grid needs to adapt and solutions (clustering)
- EV Micro Climate
- Blink
- The EV Project
- ABB and ECOtality
- Concluding remarks.



---

**blink**

# Early Electric Vehicles

By 1900, 38% of vehicles in the U.S. were electric.

- Primitive battery technology & electric grid
- EVs needed to be close to power plants
- Oil was cheap and becoming more widely available.
- ICE's had a mobile "self contained power plant"



Thomas Edison and an EV (1913)



Thomas Edison in an EV (1914)

---

**blink**

# EVs resurfaced the 1990s



TEV electric - 1993



Chrysler Epic - 1992



GM EV 1, circa 1996



Toyota RAV4 EV, 1997-2003

# Why it failed

- 1990-2010: No official EVSE inlet/connector standard
- Inability to create universal public charging networks
- DC Fast Charge limited to fleet trials
- Relatively low gasoline prices
- Limited battery technologies (lead Acid)



**blink**

# Why it will succeed

- Better battery technologies (lithium based)
- 2010: SAE J1772 standard established (240V/ 32A)
- Adopted by every major EV manufacturer
- Allows for universal Level 1 & 2 EVSE infrastructure
- Consumer demand for EVs at all time high
- High gasoline prices
- National security & environmental considerations



**blink**

# North American Standards

- DC Fast Charge standard still undefined
- All Japanese OEMs have adopted the CHAdeMO
- SAE also working on DC Fast Charge Standard
- Physical limitations effect ability for higher speed



---

**blink**



# Different Charging Levels

## Level 1

## Level 2

## DC Fast Charge

<b>SPECIFICATIONS</b>	120VAC; 12Amps	240VAC; 40Amp	480VAC/ 3Phase 30kW - 250kW
<b>CHARGE TIME</b> (10-30kWh)	8-24 hours	4-8 hours	10-30 minutes
<b>APPLICATION</b>	Emergency Use, Remote Areas	Residential, Commercial, Public Areas	Commercial, Fleet use



**blink**

# EVs Are Here...

## THE MAJOR MANUFACTURERS

Vehicle	Manufacturer	Type	Electric Range (Mi)	Battery Size (kWh)	Model Year
LEAF	Nissan	BEV	100	24	2011
VOLT	GM	PHEV	40	16	2011
ActiveE	BMW	BEV	120	32	2011
Transit Connect	Ford	BEV	80	28	2011
Focus Electric	Ford	BEV	100	24	2011
i-MiEV	Mitsubishi	BEV	75	16	2011
Prius PHEV	Toyota	PHEV	14.5	5.2	TBD
Smart EV	Daimler	BEV	70	16	2012
RAV4-EV	Toyota	BEV	100	35	2012



**And Fiat, Chrysler, Volkswagen, Audi, Hyundai, Kia, Jaguar, Porsche, Tata, and even Bentley are all coming as well...!**

**blink**

# ...And More Are Coming

## NEW MARKET ENTRANTS

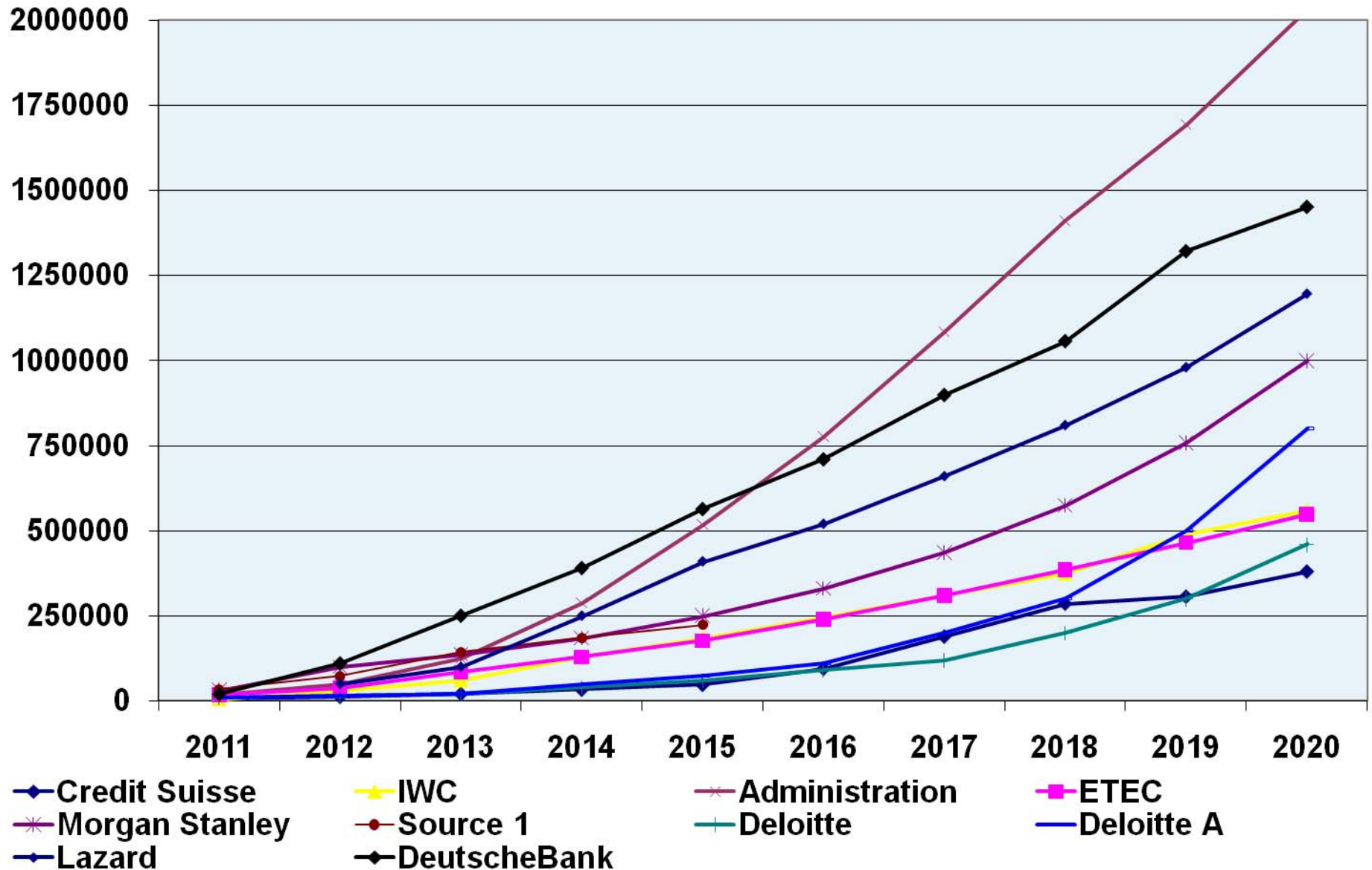
Vehicle	Manufacturer	Type	Electric Range (Mi)	Battery Size (kWh)	Model Year
Roadster	Tesla	BEV	245	53	2010
Karma	Fisker	PHEV	50	20	2011
Coda Sedan	Coda	BEV	100	37	2011
F3DM	BYD	PHEV	62	13.2	2011
e6	BYD	BEV	250	72	2011
Think City	Think!	BEV	120	24	2012
Model S	Tesla	BEV	160-300	42-95	2012



**There are over 35 new E – Car new companies worldwide...!**

**blink**

# ...And More Are Coming



# EVs will impact the grid (if not managed correctly)

- A typical home consumes 2-5 kW
- Residential EVSE will use 3.3-6.6 kW (@ 240V/32A)
- DC Fast Charging will use up to 60 kW for passenger cars.
- Consumer demographics will lead to neighborhood clustering



**blink**



# EV Micro-Climates

Structured program to make regions & utilities "plug-in ready"

## 1) Community Planning

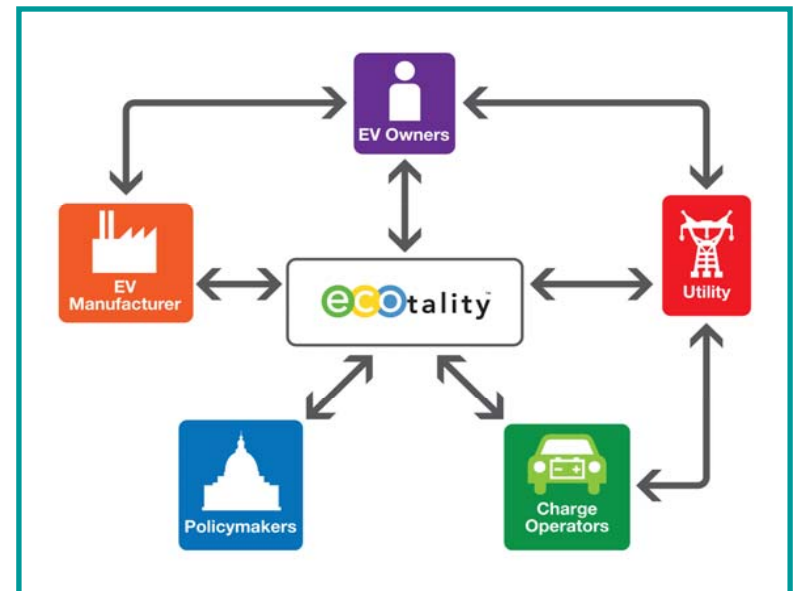
- Deployment Guidelines & Stakeholder Coordination
- Long Range Plan (10 years)
- Micro-Climate Plan (1-3 years)

## 2) Road Mapping

- 1-3 year action plan
- Systematic GIS mapping

## 3) Infrastructure Implementation

- Deployment of EV charge stations
- Targets scalable national accounts
- Implement sustainable business models

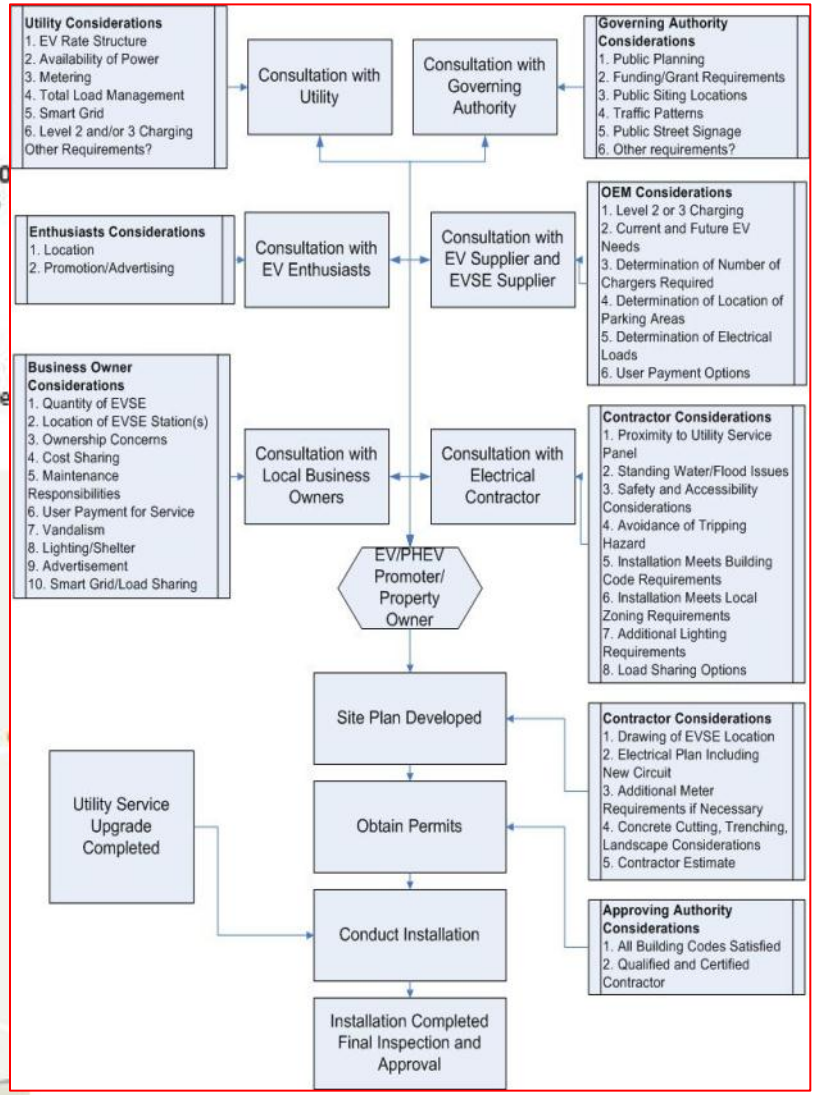
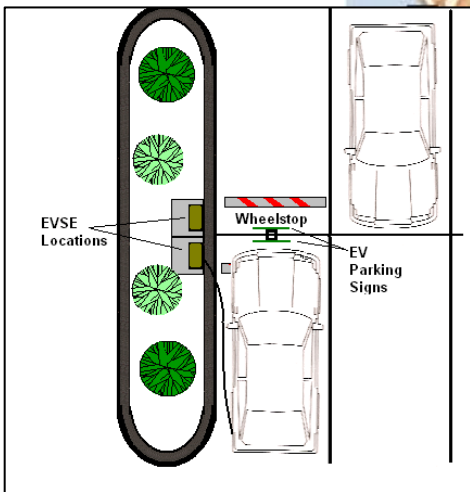
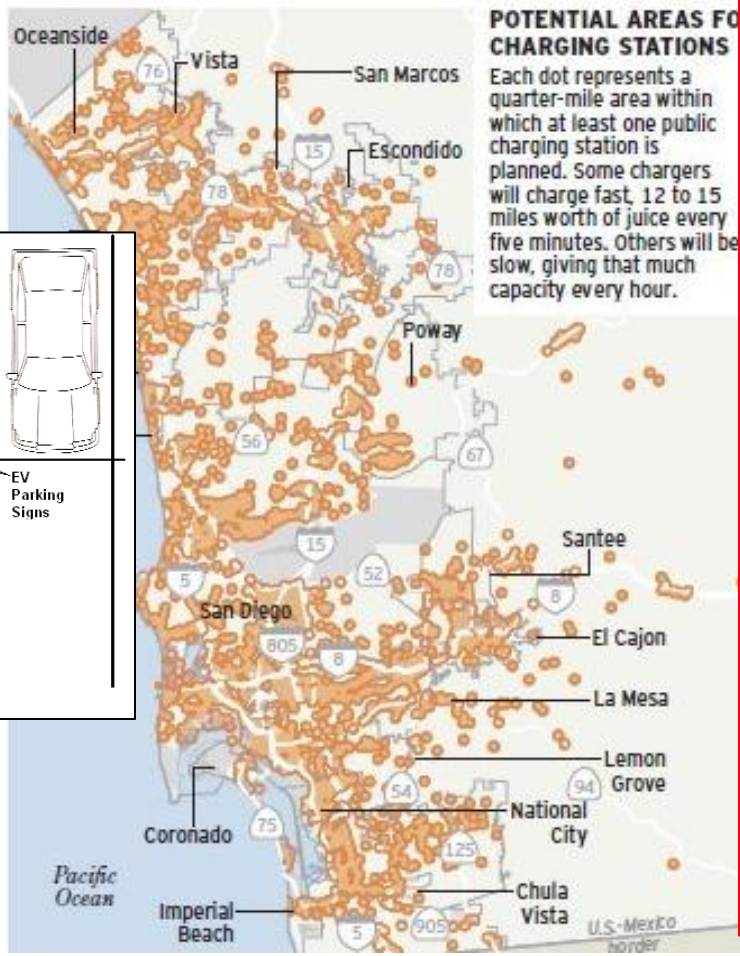


---

**blink**



# Micro-Climate™





# blink



## The smart solution for utilities

# blink

## Residential Level 2

- 240VAC /32 Amps
- Interactive color touch screen
- Real time communications
  - LAN, CDMA, WiFi, AMI
- Certified utility meter (ANSI-C.12)
- Programmable charge time
- Smart phone & internet controls
- ADA compliant
- Available in Plug-In and Hardwired Models
- Designed for 10,000+ cycles





# blink

## Commercial Level 2

- 240VAC/ 32 Amps
- Color touch screen
- Real time communications
  - LAN, CDMA, WiFi, AMI
- Certified utility meter
- Reservation capable
- Smart phone & web controls
- Host web portal
- 360° beacon light
- ADA compliant
- Cord management





---

**blink**

# blink

## DC Fast Charger

- 3 phase/480VAC
- 42" Color Monitor (optional)
- Color touch screens
- Dual port dispenser design
- Real time communications
  - LAN, CDMA, WiFi, AMI
- Certified utility meter
- CHAdeMo Connectors
- Reservation capable
- Smart phone & web controls
- Host web portal
- ADA compliant





---

**blink**

# HAN/HEMS Integration

## For Consumers

- Better understanding of energy use
- Optimizes charging behavior
- Remotely manages Blink EV charging
- Integrates with other smart appliances
- Lower up-front installation costs

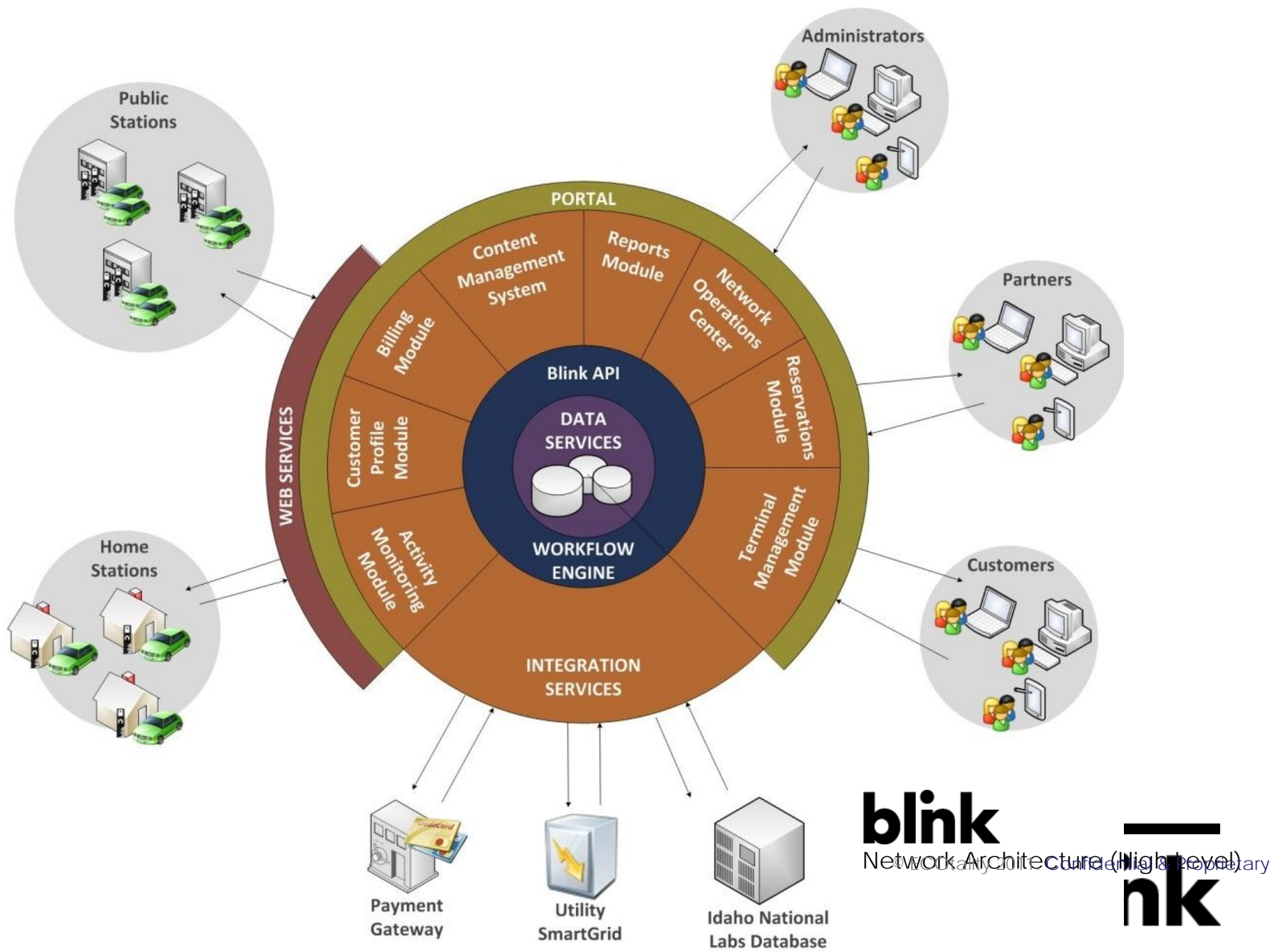


## For Utilities

- Integrate homes into DR and dynamic pricing programs
- Integrates with utility AMI and DRMS
- Helps utilities directly message to consumers
- Improved billing through direct communication with energy usage information

**blink**





**blink**  
 Network Architecture (High Level)

**nk**

# THE Project

## The largest DOE EV Infrastructure Program

**PROJECT MANAGER:** *ECOtality North America*

**PROJECT SCOPE:** *Approx. 14,000 Charging Stations*  
*8,300 Nissan LEAFs & GM Volts*

**TOTAL VALUE:** **\$245.6 million** (*\$122.8m Private match*)

**OBJECTIVES:**



- *Collect & analyze data on EV use & charging patterns*
- *Evaluate effectiveness of charge infrastructure*
- *Commercially test various revenue systems*
- *Establish a scalable & viable infrastructure model*

---

[www.TheEVproject.com](http://www.TheEVproject.com)

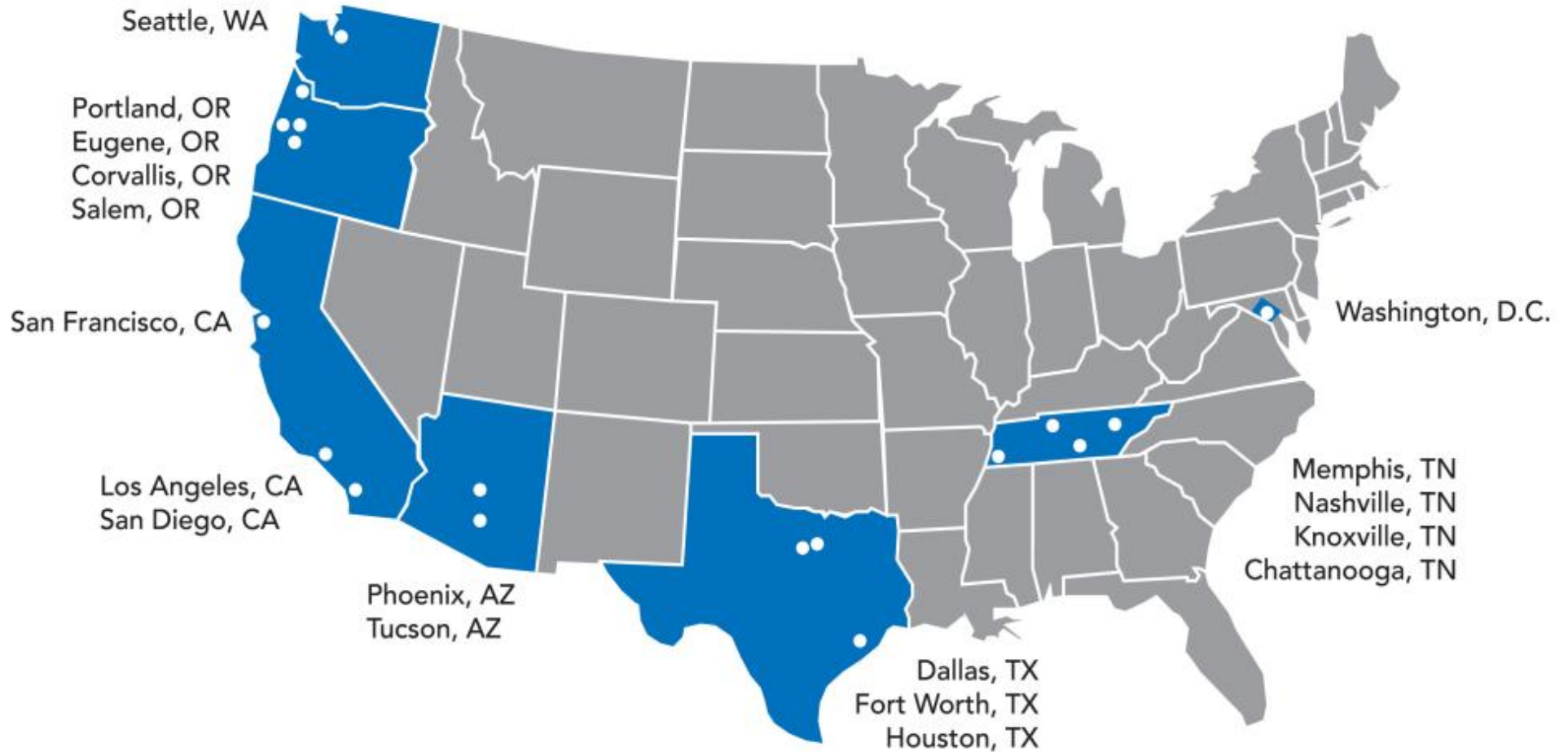
**blink**

# 50+ Project Partners



**blink**

# 18 Major Cities



# National Accounts

**STRATEGY:** *Target leaders in various retail markets to host & retail EVSE to establish a scalable national solution.*



# Strategic fit with ABB



- Experience in grid management at transmission & distribution
- Product/component supplier
  - Deep competency in power electronics
  - Cost effective technology development for slow and fast charging solutions
  - Low-cost, high-volume manufacturing
- Global reach & reputation
- Utility Software solutions
- Project management for EV programs
- EV Micro-Climates a turn key for utilities to be “plug-in ready”
- BLINK Network for EVSE management & complete customer interface
  - Billing, Authentication, etc.
- Advanced smart charging allows for utility integration and smart grid/ancillary service integration
- Strong presence in North America
- On all industry advisory committees
- Smartest charger on market



# CORPORATE OFFICE

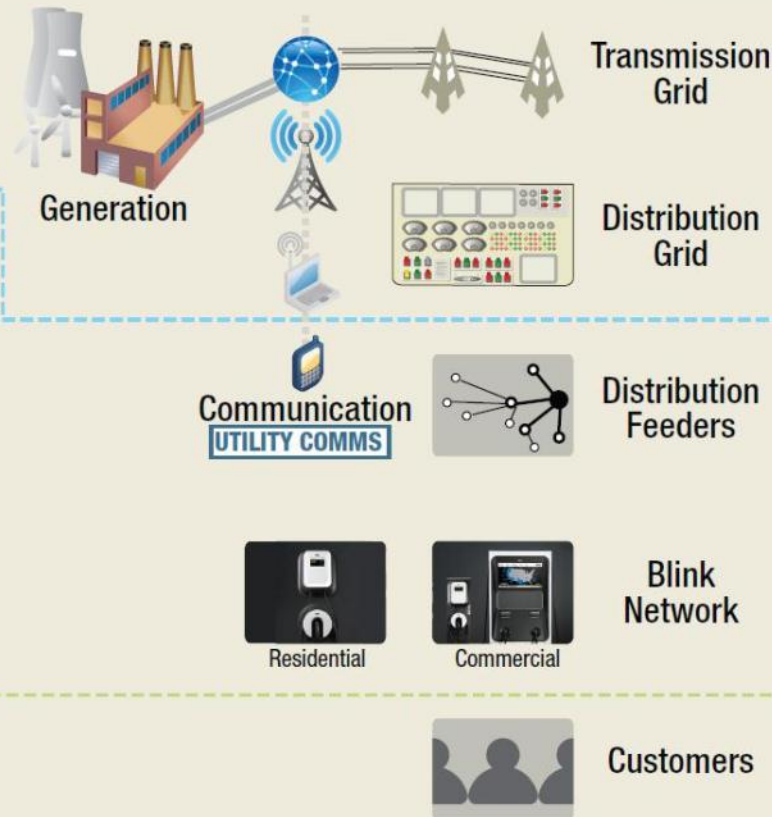
Procurement **EAM SCM** Finance & Accounting **ENERGY PORTFOLIO MGMT.** Executive **ENERGY PORTFOLIO MGMT.** Commercial Operations **ENERGY PORTFOLIO MGMT.** Market Management **MMS**

## INFORMATION TECHNOLOGY PLAN - CONSTRUCT - SERVICE - MAINTAIN

## ENERGY MANAGEMENT INFRASTRUCTURE GENERATION - TRANSMISSION - DISTRIBUTION

## OPERATIONS TECHNOLOGY OPERATE ASSETS - REAL TIME - EVENT DRIVEN

Plant Operations **EOM**  
 Plant/System Maintenance **EAM**  
 Design Engineering **EAM**  
 Mobile Workforce:  
 Short Cycle **EWFM** Long Cycle  
 Customer Service **CIS**



Transmission Grid Operations **SCADA/EMS**  
 Distribution Grid Operations / Outage Mgmt. **SCADA/DMS/OMS**  
**DISTRIBUTION AUTOMATION**  
 Generation Operations **SCADA/GMS**

Reality:



Power and productivity  
for a better world™

&



Leading EV Infrastructure  
Solutions

**EV solutions  
for a better world**

---

**blink**



# Contact Info



Four Embarcadero Center  
Suite 3720  
San Francisco, CA 94111  
P: 415-992-3000



[www.ECOtality.com](http://www.ECOtality.com) ● [www.theEVproject.com](http://www.theEVproject.com) ● [www.blinknetwork.com](http://www.blinknetwork.com)

