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Making Electric Mobility a Reality

Company Presentation 2011

Major EV Commercialization Timeline

Tesla Motors
Over 1,000 vehicles sold to date; recipient of $465m DoE federal funding to help accelerate production to 20,000 vehicles per year

Nissan
Target 50,000 units in 2010, mass production of 120,000 units by 2012

Coda
Roll out in California in mid-2010, public delivery in 4Q 2010

Audi
A1 PHEV to launch in 2011, also developing e-tron EV

Tesla Motors
Model S production of 20,000 vehicles per year starting in 2012

Reva
Already 4,000 vehicles sold; planning launch of new NXR in late 2010

BMW Mini
600 vehicles currently testing in EU and US

2008 **2009** **2010** **2011** **2012**

Mitsubishi
Increased production in 2010 to 8,500 units; 50,000 units by 2012

BYD
Launched e6 already with vehicles on the road, 2010 launch for China and US

GM (Opel)
Target of 10,000 production of Ampera PHEV in 2010

Detroit Electric
Partnered with Dongfeng (China's 3rd largest auto maker), e63 model planned for late 2010

Daimler SMART
Testing several thousand vehicles already in EU and US; 50,000 roll out scheduled for 2012; recent JV with Nissan-Renault

Chery
Already selling S18 EV w/ launch targeted in late 2010, target 30,000 vehicles

GM (Chevrolet)
10,000 production of Volt PHEV in 2010

Fisker
Recipient of $529m DoE loan, 7,500 vehicles in 2010, 15,000 vehicle production capacity in 2011

Ford Motor
Focus to be introduced in 2011 with production of 11,000 cars; Escape PHEV testing now, sales in 2012

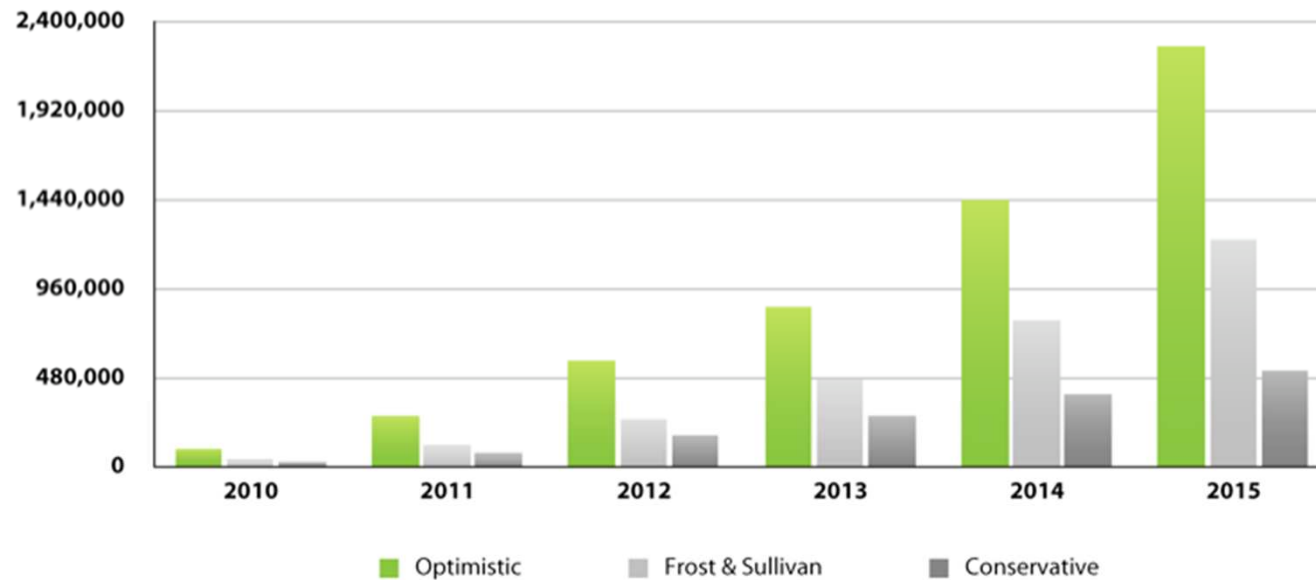alva technologies

EV Market Growth Potential

Global EV Sales, 2010-2015

Given faster than expected improvements in batteries, vehicles are becoming commercially viable faster than projected.

China alone is projected 500,000 vehicles by the end of 2012. Germany is planning for 1,000,000 vehicles in the next decade.

Source: Frost & Sullivan APAC EV Report.

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Electric Vehicles Create Opportunity

Improve the way we live

- Improve environment
- Reduce dependence on oil
- Reduce cost of transportation

Reduce our vehicles operation costs

- Electricity costs are dramatically lower then fuel costs
- Fewer moving parts to maintain

Meet government regulatory requirements

- Decrease petroleum consumption
- Increase alternative fuel use
- Greenhouse gas reduction

But without infrastructure nothing will move forward….

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EV Charging Stations Market

Total EV Charging Station Unit Sales, 2010-2015

Legend:
- Africa/Middle East
- Asia Pacific
- Eastern Europe
- Western Europe
- Latin America
- North America
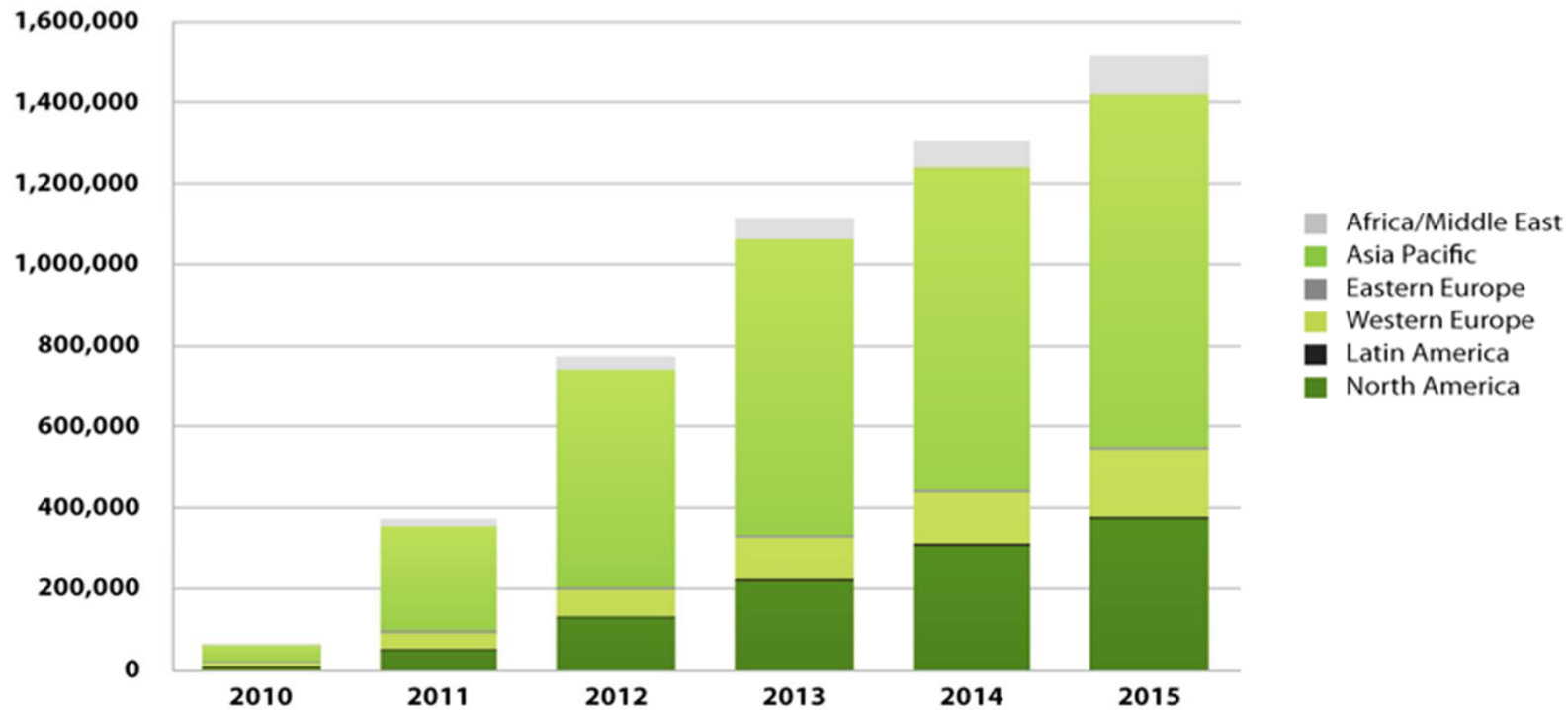
Cumulative US$6.5 billion market opportunity 2010 - 2015

Source: Pike Research.

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Electric Vehicles Create Infrastructure Challenges

- How to provide convenient electric charging access?
- How to make system are simple and user friendly?
- How to ensure vehicles are always charged and ready?
- How to handle the "rage anxiety" factor?
- How to protect driver and utility network safety and limit liability?
- How to control access and differentiate cost of electricity delivery to vehicles?
- How to mange costs and track greenhouse gas and other savings?
- How to make sure network can be easily extended and
- stay current with new technology?
- How to manage the potential increase demand?

So someone needs to get things moving...

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Poland EV Reality

- No real central government support and coordination

- Not enough money available to build up initial infrastructure

- Legal frame work not defined

- Limited number of car vendors to ship products to Poland in 11-12

- ✓ Local municipalities trying to get involved

- ✓ Private business initiatives, such as e+, vattenfall, Komel, RWE, green stream

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Poland – Moving Forward

1. Joint effort to get central government involvement
2. Local municipalities set up a practical pilot project
3. Infrastructure budget is defined, with/without EU support
4. Public and Private Task Group is set to move forward
5. Build awareness by example, key local people to drive EV (mayor)

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Alva Technologies

Alva Technologies is an electric mobility solutions integrator.

The company provides comprehensive services in the field of electric vehicle infrastructure.

Our products and solutions include: Electric vehicle networked charging stations supporting Smart Grid infrastructure, Tailor made software solutions for managing the charging network and consultancy services.

Alva Technologies is currently developing electric vehicle infrastructure in the EMEA with a special focus on the market in Poland.

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Our Solutions

Charging Stations

Charging stations

Level I-III and DC charging under our own brand and also from the world leading vendors.

Charging Network Systems

Charging stations management & control systems and tailor made solutions to support the charging network.

Consultancy Services

Planning the charging network and creating business models for electric mobility together with the related marketing and sales strategies.

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Our Products

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- Simple or Networked Charge Points
- Level I-III
- Greenlots based
- Competitive Price!

Coulomb Technologies

- Networked Charge Points
- Level I-II, III(Q2 2011)
- Comprehensive network control system

AKER WADE™

- Networked Charge Points
- Fast Charge (DC)
- Unique Experience in DC charging solutions

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Our Smart Network

Alva and its suppliers offer charging stations with intelligent management & control capabilities, among other our systems include:

User / Driver Portal
To manage accounts, sign up to network, apply for RFID tags, locate charging stations on a map and more.

Host / Management / Utility Portal
To control remote access to charging stations for non account users, monitor unit performance, occupancy and usage, shut down/delay/restart stations or network of stations from remote and more.

Coulomb Technologies ChargePoint® Network

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Our Stations Around the World

Alva and its suppliers stations were installed in, partial list: The Netherlands, Belgium, Norway, Germany, UK, Poland, Slovenia, Turkey, Japan, Singapore and Hong Kong.

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Thank You, Lets Make Electric Mobility a Reality !