Positioning New Powertrain Technologies to Consumers

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Focus on the Future Conference
Marketing New Powertrain Technologies: Strategies in Transition
February 15, 2012
Positioning New Powertrain Technologies to Consumers

How’s the category doing?

What & how are automakers promoting?

Category SWOT?
Hybrid VIO – 1.9 million on U.S. Roadways Today

Cumulative Hybrid VIO beginning/ending with 2000/2011 model year hybrids
based on a July 2011 snapshot
Source: Polk

Model Year Range of U.S. Hybrids in Operation (anchored to 2000 MYr. as of July 2011)
HEVs Represent Only 0.80% of All Light Vehicles on U.S. Roadways Today

Hybrid Penetration of US Light Vehicles in Operation
(Penetration shown by DMA ®)

Hybrid penetration based on a July 2011 snapshot
Source: Polk
U.S. Total New Hybrid Registrations Peaked in 2007

Source: Polk
Nissan LEAF – 31% from 5 Buyer Groups

<table>
<thead>
<tr>
<th>Model</th>
<th>Conquest from</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toyota Prius</td>
<td>636</td>
<td>16.2</td>
</tr>
<tr>
<td>Honda Civic</td>
<td>277</td>
<td>7.1</td>
</tr>
<tr>
<td>Honda Odyssey</td>
<td>124</td>
<td>3.2</td>
</tr>
<tr>
<td>Toyota Sienna</td>
<td>96</td>
<td>2.5</td>
</tr>
<tr>
<td>Toyota Highlander</td>
<td>95</td>
<td>2.4</td>
</tr>
<tr>
<td>Toyota Camry</td>
<td>94</td>
<td>2.4</td>
</tr>
<tr>
<td>Nissan Altima</td>
<td>84</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Leaf Conquest from:

Top 5 account for: 31.4%
Top 4 (4 tied) account for: 28.3%

Source: Polk, January – November 2011 buying activity.
Chevrolet Volt – 21% from 5 Buyer Groups

<table>
<thead>
<tr>
<th>Source: Polk, January – November 2011 buying activity.</th>
<th>Top 5 account for: 21.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volt Conquests from:</td>
<td>%</td>
</tr>
<tr>
<td>Toyota Prius</td>
<td>342</td>
</tr>
<tr>
<td>Chevrolet Malibu</td>
<td>91</td>
</tr>
<tr>
<td>Chevrolet Silverado</td>
<td>89</td>
</tr>
<tr>
<td>Toyota Camry</td>
<td>79</td>
</tr>
<tr>
<td>Chevrolet Corvette</td>
<td>71</td>
</tr>
<tr>
<td>Honda Civic</td>
<td>68</td>
</tr>
<tr>
<td>Chevrolet Tahoe</td>
<td>67</td>
</tr>
</tbody>
</table>

Top 4 (4 tied) account for: 28.3

Leaf Conquest from: 

Volt Conquests from: 

Tesla Roadster Conquests from: 

Honda CR-Z Conquests from: 

Top 5 account for: 31.4

Top 5 account for: 21.4

Top 4 (4 tied) account for: 28.3

Top 5 account for: 35.2

Chevrolet Volt – 21% from 5 Buyer Groups

Prius (#1)

Malibu (#2)

Silverado (#3)

Camry (#4)

Corvette (#5)
Tesla Roadster – 28% from 7 Buyer Groups

<table>
<thead>
<tr>
<th>Top 4 (4 tied) account for:</th>
<th>28.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tesla Roadster Conquests from:</td>
<td>%</td>
</tr>
<tr>
<td>BMW 3 Series</td>
<td>11</td>
</tr>
<tr>
<td>Toyota Prius</td>
<td>10</td>
</tr>
<tr>
<td>Porsche 911</td>
<td>6</td>
</tr>
<tr>
<td>Lexus RX300/330/350/400/450</td>
<td>4</td>
</tr>
<tr>
<td>Toyota Sienna</td>
<td>4</td>
</tr>
<tr>
<td>Ferrari Ferrari</td>
<td>4</td>
</tr>
<tr>
<td>Land Rover Range Rover</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Polk, January – November 2011 buying activity.
Honda CR-Z – 35% from 5 Buyer Groups

Source: Polk, January – November 2011 buying activity.
U.S. HEV / EV Forecast: A Fabulously Optimistic Scenario

Source: Polk
Market Development Factors

- Technology advancement
- Urbanization
- Customer demand
- CO₂ reduction
- Shrinking crude oil resources
- Reduced price disadvantage vs. conventional technology
- Political pressure
California orders automakers to sell more non-polluting vehicles by 2025

Ten other states plan to adopt advanced vehicle rule

Beginning in 2018, automakers accounting for about 97 percent of new light-vehicle sales in California will be required to sell plug-in hybrid, electric and fuel-cell vehicles in greater volumes every year to reach the 15.4 percent target by 2025.

 parameter: California 2025

15.4%

PHEV, EV, FC share of state’s total

Ryan Beene
Follow Ryan on Twitter

Automotive News -- January 27, 2012 - 12:01 am ET

UPDATED: 1/27/12 4:28 p.m. ET

10 comments | Recommend

LOS ANGELES -- California regulators today approved a plan that would require 15.4 percent of new vehicles sold in the
Demand Factors

- Available model portfolio
- Managing Expectations
- Infrastructure
- Technology
- Mileage Range
- Cost

Demand
“How do you define Hybrid?”
A hybrid mom is someone who is able to put fear, criticism, and insecurities aside to embrace her passion.
~ Samantha Asay
Peer Pressure?

EAT MY VOLTAGE
FUEL PRICES SUCK
FOR YOU
Shopper Framework

My Needs?

My Choices?
- HEVs / PHEVs
- EVs

My Budget?
- Clean Diesel
- “Pay it forward”
- “Early Adopter”
- “Cheaper Fuel Costs NOW”

My Mindset?
- Convenience

“Rebates” (insurance, tax break)

Dealer Education
### HEVs for Sale (1999 – 2011)

<table>
<thead>
<tr>
<th>HEVs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honda Insight</td>
</tr>
<tr>
<td>Toyota Prius</td>
</tr>
<tr>
<td>Honda Civic</td>
</tr>
<tr>
<td>Ford Escape</td>
</tr>
<tr>
<td>Honda Accord</td>
</tr>
<tr>
<td>Lexus RX400h</td>
</tr>
<tr>
<td>Toyota Highlander</td>
</tr>
<tr>
<td>Mercury Mariner</td>
</tr>
<tr>
<td>Lexus GS 450h</td>
</tr>
<tr>
<td>Toyota Camry</td>
</tr>
<tr>
<td>Nissan Altima</td>
</tr>
<tr>
<td>Saturn Vue</td>
</tr>
<tr>
<td>Lexus LS600hL</td>
</tr>
<tr>
<td>Saturn Aura</td>
</tr>
<tr>
<td>Chevy Tahoe</td>
</tr>
<tr>
<td>GMC Yukon</td>
</tr>
<tr>
<td>Lexus CT200h</td>
</tr>
</tbody>
</table>

### Plug-Ins (2008 – 2011)

<table>
<thead>
<tr>
<th>Plug-Ins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tesla Roadster</td>
</tr>
<tr>
<td>Nissan LEAF</td>
</tr>
<tr>
<td>Chevrolet Volt</td>
</tr>
<tr>
<td>Mitsubishi ‘i’</td>
</tr>
<tr>
<td>Fisker Karma</td>
</tr>
</tbody>
</table>

Source: John Voelcker, senior editor at High Gear Media & editor of GreenCarReports.com
Promoting the Category

- Harmony
- Revolutionary
- Space
- Coexisting
- Versatility
- Performance
- Technology
- Appearance
- Easier Life
- Power
Electricity is like sex – people lie about it. You never get quite as far with electric car disabled.

– Jay Leno taking delivery of his 2011 Chevrolet Volt
Celebrity Advocacy (Public Service Announcement)

Fabio on Electric Vehicles

PlugInAmerica.org

Fabio
"The Face"
Harmony with Nature – No Harm to Environment

3rd generation Toyota Prius
“It’s harmony between man, nature and machine.”
“You get more power and more space, the world gets fewer smog-forming emissions.”

Nissan LEAF
“Innovation for the planet, innovation for all.”
Chevrolet Volt

“I can go 35 miles gas-free, or, I can fill-up and go a whole lot farther.”

“Electric when you want it, gas when you need it.”
Toyota Prius V

“The newest member of the Prius family has the space of a small SUV and fuel efficiency of a Prius.”

“More Prius, more possibilities.”

Ford Escape Hybrid

“Ford Escape Hybrid. Stretch out in one.”
Performance – No Compromises

Infiniti M Hybrid

“Why join the pursuit, when you can take the lead?”

“The high performance hybrid.”

“IT’s about time someone accelerated the green movement”
Lexus CT

“Unrestrained, unexpected and unlike any hybrid you have ever known.”

“Welcome to the darker side of green.”
Did We Surprise Them?
Recap

**How’s the category doing?**
Slow growth...hesitant demand...forced ‘boost’ coming

**What & how are automakers promoting?**
Emotion, form and function...nothing new

**Category SWOT?**
Next slide >>
Category SWOT

- Feasible (established?) technology
- Model policy (planned production)
- Advocates exist
- Cultural mindset

- Battery technology
- Economies of scale not yet reached
- Cost premiums

- Stronger education
- Legislation / CAFÉ standards
- Creative incentives
- Body style variety

- Competitive ICE options
- Buying power/economy
- Vehicle service complexity
Thank you / Questions?

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www.polk.com