

EV Everywhere Workshop
July 30, 2012

CONSUMERS

**(CONSUMER ACCEPTANCE AND CHARGING
INFRASTRUCTURE)**

**Consumer Acceptance
Group A**

Breakout Session #1 – Brainstorm Consumer Acceptance Barriers

- Building category awareness
 - “Butts in the seat”
 - \Car sharing & rental
 - DOE should run a pilot project with rental car & car sharing companies to subsidize initial integration of Evs into those fleets
 - Social media
 - Groupon coupons – need to use the breadth of available social media options
 - Driver ambassador database – registered drivers that are connected to other drivers.
 - Use social media opportunities in the context of awarded grants
 - \“experience” desire
 - Leveraging existing drivers
 - Find ways to leverage this pool to share their experience
 - Find ways to celebrate this existing pool. Survey existing PEV owners on how they could/serve as outreach levers. Provide a central place for these drivers to interact
 - Etc.
- Need to make much better use of available data. Can use existing data sources to inform stakeholders AND potential consumers
 - Need to discern between level 1 and level 2 data
 - Rules of thumb on the amount of public charging required for different population densities
 - Examine different data sources available and possible uses
 - Need to better understand the implications of the perceived need for faster charging versus actual consumer behavior

Breakout Session #1 – Brainstorm Consumer Acceptance Barriers

- **Affordability**
 - **Changing perceptions, actual cost**
 - Smart phone app to compare PEVs with current vehicle
 - Other total cost of ownership tools
 - DOE should promote various tools that help consumers gauge affordability
 - Tools should help consumers determine what their next vehicle needs will be
 - **Finance and ownership models**
 - Vehicle to home/vehicle to business/grid values
 - Residual value of batteries – need to look at what types of standardization would help this value proposition
- **Perceived value – affordability does not = cheap**
- **Value:** A range of battery sizes/vehicles enables consumer to purchase the vehicle they need and increases overall sales volumes, lowering cost of ownership
- **Standardization of communications, chargers, batteries, etc.**

Breakout Session #1 – Brainstorm Consumer Acceptance Barriers

- Improved incentives, finance, and ownership models
 - Awareness
 - Innovative outreach promoting availability of incentives
 - Consumer tool
 - DOE should help refine and improve on-line tools for consumers to investigate total cost of ownership in their vehicle choice decision
 - Lease vs. purchase decision
 - Point of sale, vehicles selling at or below MSRP, threshold cap)
 - Change current incentive to a point of sale rebate
 - Remove current limits (200,000)
 - Non-monetary incentives are very important (HOV lane access, etc.)

Breakout Session #1 – Brainstorm Consumer Acceptance Barriers

- Convenient access to charging infrastructure (home, Workplace charging and assured availability)
 - Added infrastructure and becomes a showroom
 - Workplace Charging
 - Developing case studies. Models for cost structure.
 - Using existing Clean Cities network to encourage, employers and/or city managers
 - IRS statement to say workplace charging is de minimus
 - Technical assistance effort to help businesses walk through the process. Technical assistance could take the form of best practices and guidance
 - Recognition: federal or other
 - Potential businesses to approach: target mix of business sizes – small companies have a lower infrastructure hurdle, large companies would have a larger impact.
 - May need to distinguish between new and old construction. 5% of spaces may be a good number.
 - Vehicle penetration more important than just charging
 - Park and ride lots should be targeted.
 - Recognize many business run from leased spaces.
 - Need all new construction to enable charging (home, parking lot, multi-unit dwellings, etc.)
 - Need standardized access and billing to public infrastructure

Breakout Session #2 – Refine Consumer Acceptance or Charging Infrastructure
Concepts

- Batteries that last for the life of the vehicle
- Evs with short range for car-sharing vehicles
- Technologies or capabilities that electric drive enable and are unique
- Vehicle Range: need more analysis of what is needed, including how vehicles are used in general
- Provide consumers with a self-analysis tool to help them decide which type of vehicle is right for them
- **Building category awareness**
 - “Butts in the seat”
 - \Car sharing & rental
 - Social media
 - \”experience” desire
 - Leveraging existing drivers
 - Etc.
- Need to stabilize fuel prices (price floor)
- Innovative financing and ownership models
- Getting “butts in the seat” – car-sharing, long test opportunities, rentals, etc., vehicle loan program

Breakout Session #2 – Refine Consumer Acceptance or Charging Infrastructure
Concepts

- Need a greater diversity of range in Evs (e.g. 50-100-150 mile range)
 - PHEVs of differing range (10-20-40)
- Consumers may need to be able to order a vehicle of the range they desire
- Fully recognize in the conversation that PHEVs are inherently different than AEVs
- Need vehicle choices and availability. Need better marketing that appeals to the emotional aspect of the purchase
- Convenient access to charging infrastructure (home, Workplace charging and assured availability)
 - Added infrastructure and becomes a showroom
- Need to leverage social media – interaction with people who are already owners
- Need consumer to see electric drive in this manner
 - Convenience to charging at home
 - Need consumers to see this as an incremental change to HEVs (technology acceptance)
 - Lifetime total cost of ownership
 - Understand the unique driving experience of electric drive –need to get people in the vehicles (silent, acceleration, etc.). Need to get “butts in the seat”.
 - Environmental benefits – incentivize more environmentally sound vehicles
 - Transparency of fuel cost
 - Not everyone needs level two charging

Breakout Session #2 – Refine Consumer Acceptance or Charging Infrastructure
Concepts

- Barriers
 - Affordability
 - Installation of chargers (permitting, etc., multi-unit dwellings, new construction codes, utility notification, different levels of charging, need for sub-meters, time of day charging)
 - Lack of full range of vehicle choices
 - Consumer confidence
 - Behavioral changes
 - Better access to charging at home (Multi-Dwelling, cost, on-street parking)