Breakout Session #2 – Discussion of Technology and Infrastructure Needs

Key points about challenges

- 1 Question of Safety – What is safe enough? Brain to Drain, Catastrophic protections, growing body of knowledge.
- 2 Cost –Cost Valuation: Bill of Material (BOM), Material, Lifecycle, Residual, Performance

Key points about opportunities (almost unlimited)

- 1 Appropriate standardization
- 2 Broad spectrum of technical opportunities incl. Balance of System(BOS): Materials, anode, cathode, cell design, pack design, complexity reduction

Key points about DOE roles and suggestions for upcoming workshops

- 1 Goals and Context for success
- 2 Effective aggregator of DOE Resources; Natnl Labs, Existing Programs and partnerships, universities.

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Key points about challenges

- Lower total cost installed EVSE for residential
- Getting EVSE into apartments and condominiums (multi-family dwellings)

Key points about opportunities

- A 1,000 CEO challenge by 2015 for workplace charging (define principles)
- Explore ways to offset infrastructure build out costs (financing, grid integration)

Key points about DOE roles and suggestions for upcoming workshops

- Lead by example (build infrastructure, purchase vehicles and/or batteries)
- Document best practices for EVSE deployment and business models
- Interagency coordination

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Key points about challenges

- Affordable, high-power density, power module packaging
- Top-down systems integration approach

Key points about opportunities

- Regenerative electric brakes
- HVAC - dealing with thermal loads
- Onboard chargers/Rare-earth magnets (inexpensive magnets)

Key points about DOE roles and suggestions for upcoming workshops

- International design competition
- Fostering opportunities for “commonization”
- Focus on system concepts and on technology roadmaps

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Key points about challenges

- 1. Cost-effective, domestic, high-volume production of lightweight materials – volume scale-up
- 2. U.S. supply base for advanced materials and advanced manufacturing processes

Key points about opportunities

- 1. Leverage lightweight materials and high-efficiency technologies – applicable to all vehicles
- 2. Leverage policy and funding on common outcomes across Federal agencies

Key points about DOE roles and suggestions for upcoming workshops

- 1. Convene stakeholders and provide ongoing stewardship
- 2. One national standard
- 3. Continuing, sustained commitment to a blueprint, action plan and annual progress review

Breakout Session #2 – Discussion of Technology and Infrastructure Needs

Note: topics reflect discussion, but not necessarily consensus

Key points about challenges

- COST (both real and perceived)
- Consumers don't understand PEV technology
  - Individual range/performance needs
  - Value proposition
- Dealership lack of incentives and knowledge/training
- Iterative debut of other new low-cost technologies; consumers waiting for technologies to "settle down"
- Public charging and interoperability among charge point payment systems
- Signage

Key points about opportunities

- Education/Communication/Marketing
  - Future consumers: science fairs, social networks, initiate appeal well before point of purchase
  - Current consumers: simplify lifecycle story and value proposition, hands-on experience (rental and/or sharing cars, peer-to-peer, virtual/mobile apps)
- Signage
- Best practices database/community/fora for stakeholder exchange
- Financing models

Key points about DOE roles and suggestions for upcoming workshops

- Educate and communicate – be a voice!
- Facilitate sharing of best practices
- Added value