



# **PHEV Market Introduction Study Workshop**

Red Group Report  
December 2, 2008



# Major Themes

- **North American market introduction phase covers the next 5-10 years and involves purchase of million(s) of PEVs from multiple OEMs**
- **V2B, V2G, level 3 charging, and battery swapping not needed for market introduction**
- **Involves a global enterprise where international standards for components and interoperability could accelerate market introduction significantly**
- **Scale-up of battery and PEV production could stress international commodity markets and the domestic supplier base**
- **Infrastructure requirements for EVs significantly larger than for PHEVs**



# Top Priority “Pinch Points”

- **Battery costs, durability, and safety**
- **Limited availability of domestic suppliers for battery cell raw materials and other critical PEV components**
- **Standards for interoperability, grid interface, communications protocols, and components**
- **Need for simple and seamless PEV charging equipment and practices for consumers**
- **Need for technical and engineering workforce to design, manufacture, and maintain PEVs**
- **Retooling OEMs for large scale manufacturing**



# Top Priority Policies, Incentives and Regulations

- **Phase in gas taxes to fund development e.g. 15 cents a gallon to pay for batteries**
- **Investment tax credits for domestic battery production facilities**
- **Financial incentives for charging infrastructure, residential, commercial and public e.g.. Tax credits to businesses for customers or employees**
- **Subsidies to lower initial vehicle price e.g.. Tax credits tied to oil/ghg reduction performance**
- **Exemption from tolls and sales taxes for first million PEVs sold**
- **Battery warrantee /guarantee by non-OEMs**



# Messages for DOE/ORNL

- Spearhead new National Energy Policy (Obama Energy Plan)
  - Implement the PEV-related pledges and goals to reduce dependence on foreign oil, create green jobs, and revive the economy with sustained commitment of funding
  - Actively engage transition team
  - PEVs critically important to national goals
- Coordinate more closely with State PEV (e.g., CA) efforts to enhance leveraging
  - Also with other Federal agencies (e.g., FTA, DOD)
  - Stronger EERE-OE coordination
- Request full funding for already authorized PEV activities for FY 09–10 and out years
  - e.g., EISA 131, 1304, 641
- Lead effort to draft legislation for new items
  - e.g., items from previous slides
- Make PEV funding more transparent
- More emphasis on tech transfer to accelerate lab to marketplace
  - Funds to industry, universities, and partnerships
- Engage electric power industry in a long term role
- Dramatic increase in DOE role, funding, and responsibility including commercialization