FreedomCAR and Vehicle Technologies Program
Plug-In Hybrid Electric Vehicle Demonstration

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Topics

• Background
• Issues
• Options
• Schedule
• PHEV supporters have expressed interest in demonstration programs for market/supplier development and consumer education
• Automotive industry has expressed interest in technology development and incentives
• Past experience indicates that timing and technology readiness are important factors in the success of a demonstration program
• Budget authorization
• Availability, reliability and capability of PHEV components
• Manufacturer participation
Options

- **Current budget request**
  - Continue ‘leveraging’ approach

- **Moderate supplement**
  - Add ‘pseudo PHEVs’

- **Full funding**
  - Deploy PHEV fleet developed by OEMs
Current Budget Request

- **Continue Leveraging Approach**
  - Vehicles from other programs
  - Logistics and coordination of data gathering and management
  - Data analysis and dissemination
• ‘Pseudo’ PHEVs using real-time data acquisition and in-vehicle emulation
  – Utilizes dynamic vehicle data combined with live model of virtual powertrains (HEV, PHEV, E85, etc.)
• Potential to determine consumer use patterns and potential petroleum displacement vs. vehicle type and characteristics
• Potential low-cost standard data acquisition and analysis
• Deploy a PHEV fleet developed by auto manufacturers
  – Notice of Intent issued by NETL
  – Teams including manufacturers, utilities, battery and electric component suppliers, etc.
  – PHEVs geographically dispersed
  – Up to $20M per year for 5 years
Full-Funding Schedule

- **Technology Assessment**
  - 2008 Near-term Milestone

- **Integration, Testing & Validation**
  - Acquisitions
  - Testing

- **Batteries**

- **Power Electronics & Electric Motors**

- **Engines & Fuels**

- **Vehicle Efficiency Technologies**

- **2012 Mid-term Milestone**

- **2016 Long-term Milestone**