



2009 DOE Peer Review Presentation Technology Integration/Deployment

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Clean Cities Regional Support &
Petroleum Displacement Awards

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This presentation does not contain any proprietary or confidential information



Outline

- Background – PMC and NETL
- Project Status:
 - Clean Cities Regional Support Activities
 - FY06 Transportation Sector Petroleum Reduction Technologies Commercial Deployment Awards
- Future Work
 - FY09 Transportation Sector Petroleum Reduction Awards
 - ARRA Projects



EERE Project Management Center

- Dedicated field capability to provide common management services for all EERE Programs
 - Project
 - Procurement
 - Financial
 - Legal
- Key functions at NETL/Golden Field Office
- NETL's Responsibilities
 - Distributed Energy Resources
 - Vehicle Technologies
 - Weatherization / Intergovernmental Programs
 - Building Technologies
 - Industries of Future (e.g., mining)
 - Biomass (e.g., black liquor)
 - FEMP / Biomass Alternate Methane Fuel (BAMF)



How PMC Staff Supports the Clean Cities Program

Traditional NETL Project Management Functions

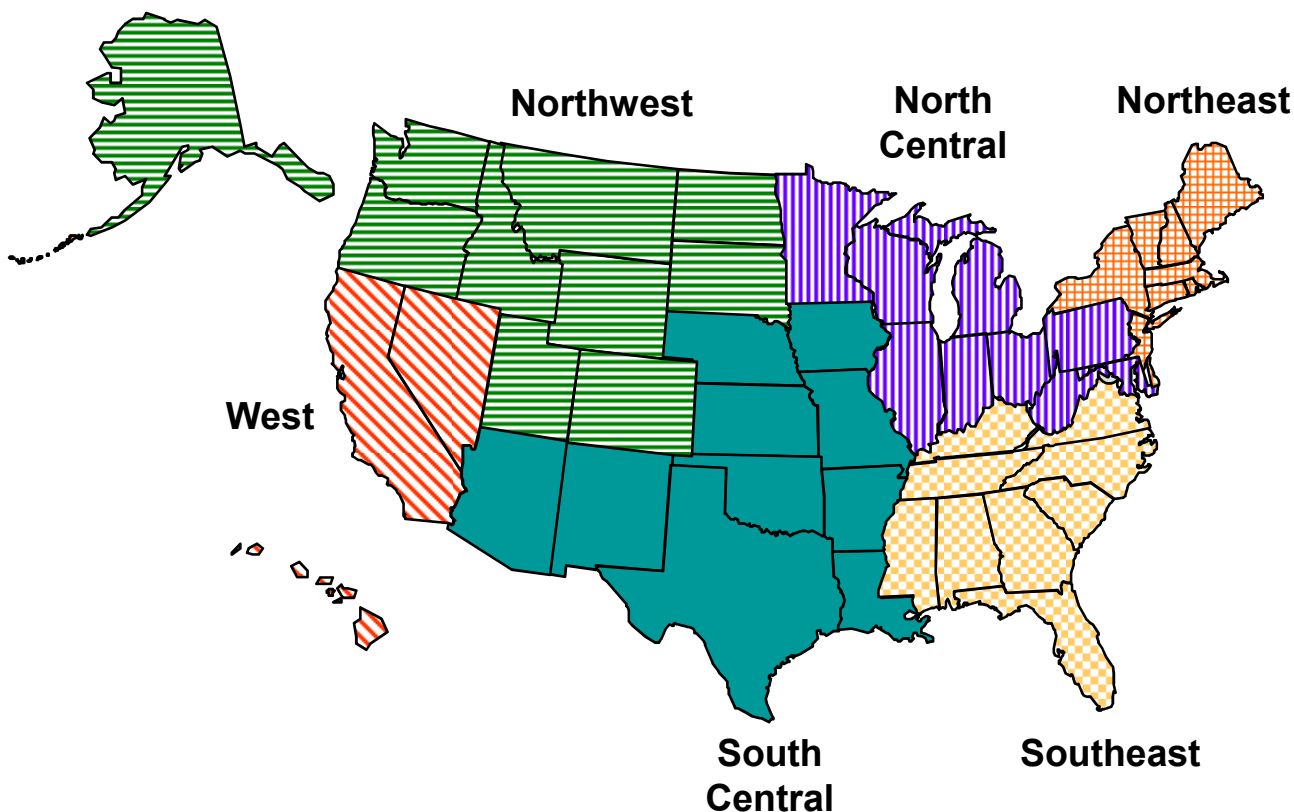
- Project Management
- Administer funding (solicitations, contracts)


Unique Roles


- Build Coalitions/Partnerships
- Assist Coordinators/Stakeholder Fleets
- Provide Technical Assistance
- Provide Outreach/Information/Support
- Provide Feedback Loop to HQ
- Plan and Execute Regional and National Meetings
- Collect Critical Programmatic Data from Coalitions





Clean Cities Regions & PMC Assignments





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Objectives

- The Clean Cities Program contributes to the VT mission by working to decrease the nation's dependence on petroleum in the transportation sector through public/private Clean Cities partnerships formed around the country by:
 - Accelerating the development of a sustainable alternative fuels market
 - Accelerating the use of idle reduction practices and technologies
 - Accelerating the use of hybrid vehicles
 - Increasing the use of alternative fuel blends in petroleum fuels
 - Promoting informed consumer choice on fuel economy
- NETL is responsible for the Project Management of the following activities:
 - Clean Cities Regional Support Activities
 - Competitive Solicitations for Transportation Sector Petroleum Displacement Technology Deployment projects



Overview – Clean Cities Regional Support Activities

Timeline:

- FY08 Contracts:
 - 11/01/07 – 10/31/08
 - 100% Complete
- FY09 Contracts:
 - 11/01/08 – 09/30/09
 - In Progress
- FY08 & FY09 Regional & National Mtgs

Budget:

- Total Project Funding: \$4,322,557
- Funding Received in FY08: \$1,335,605
- Funding Received in FY09: \$1,850,000

Barriers Addressed:

- Increased participation in annual survey and alternative fuel price report data collection activities
- Improved data quality
- Strengthened coordinator network

Partners:

- FY08 Contracts - 84 Coalitions
- FY09 Contracts – 86 Coalitions



Objectives

- Strengthen the efforts/abilities of the Clean Cities Coalitions to transform their local market by promoting Clean Cities technologies through:
 - Providing funding for Coalition & data collection activities
 - Holding Regional/National Peer Exchanges to exchange best practices, remove barriers and provide training on technologies & tools



Approach – Regional Support Activities

- Funding provided via NETL subcontractor RDS, eliminating need for establishing ~90 separate grants.
- Establish contracts with coalitions for \$12,500 each (FY08 and FY09)
 - Objective of this effort is to help fund activities related to validating, collecting, and reporting critical data and performance metrics that are needed to gauge consumer acceptance and track the growth/adoption of petroleum reduction technologies and practices in the marketplace
 - The funding will support local Clean Cities efforts that help the coalitions measure and assess local market conditions and evaluate the potential for petroleum reduction in their community
- 2009 contracts also have up to \$7,500 in additional funds available for coalitions that elect to perform activities above and beyond the baseline contract
- Also funds activities such as Regional meetings, National Leadership Retreat, & other support activities



Coalition Support Contract Reporting Requirements

- Coalitions Receiving Baseline Funds (\$12,500) are Required to:
 - Complete Annual Survey (e.g. data collected in 2008 for 2007 calendar year)
 - Respond to periodic data requests from DOE for regional market assessment information (alt fuel use & pricing, local consumer trends, etc..)
 - Remain in Compliance with Annual and/or 5 yr Re-designation process
 - Confirm existence and operation of AFV refueling sites as shown on AFDC station locator
 - Submit information related to success stories, fleet profiles, special recognition awards, and community efforts to DOE PMC or NREL that highlight Clean Cities progress in the coalition area.
 - Provide agenda and/or meeting summaries from stakeholder meetings and special outreach/training events
 - Attend DOE regional peer exchange, Program Merit Review or National Leadership Peer Exchange



2008 Coalition Support Contracts

- Period of Performance: November 2007 to October 2008
- Contracts established with coalitions for \$12,500 apiece
 - Of a total of 86 coalitions, 84 contracts were established
 - Have paid \$1,025,000 in FY 08 funds to date
- Contracts also established for Regional and National Meetings
 - \$14,805 for South Central and Northwest Regional Meeting (April 2008)
 - \$10,491 for Western Region Meeting (June 2008)
 - \$43,795 for Coordinator Leadership Retreat (September 2008)



2009 Coalition Support Contract Changes

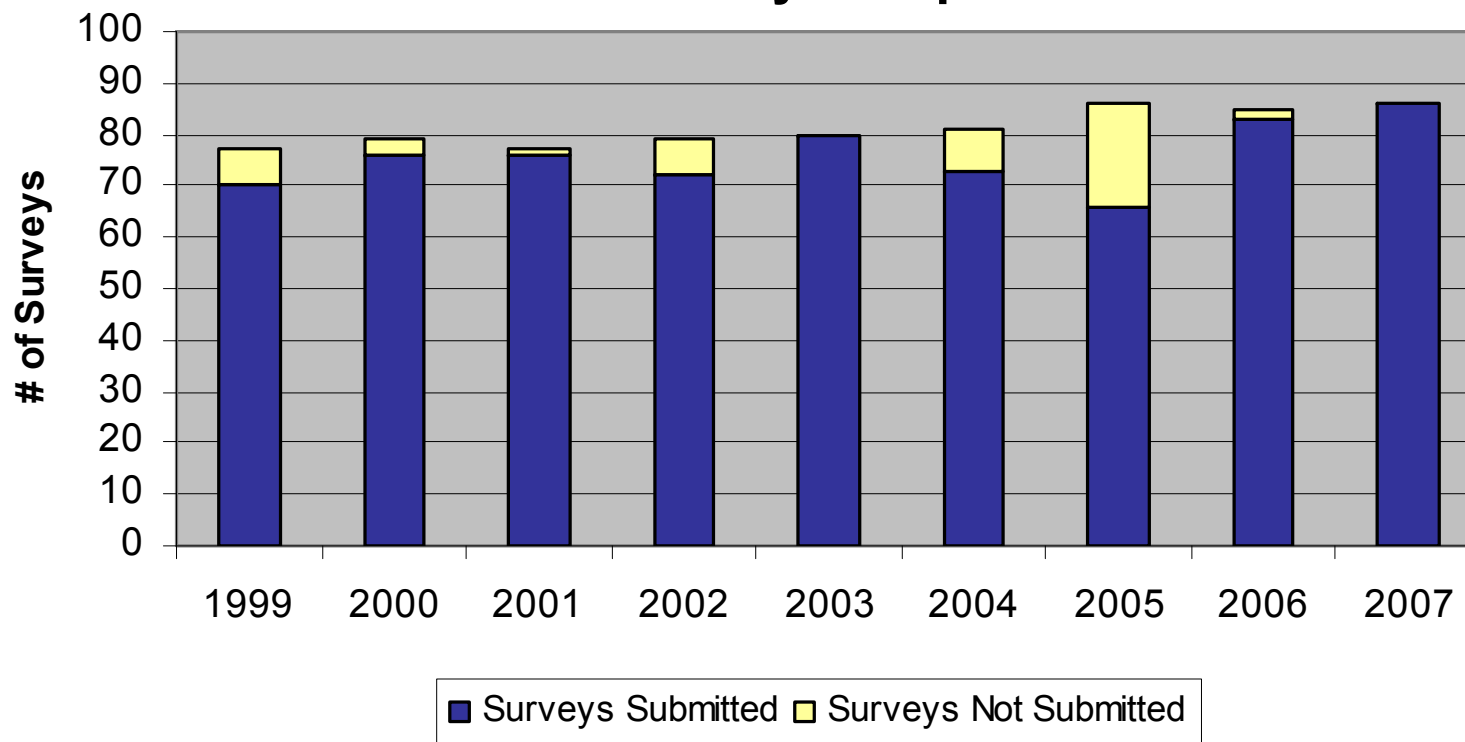
- Contracts established with coalitions for base funding with an additional funding for completing additional requirements:
 - Establish and/or Continually Update a Coalition Website
 - Issue a newsletter to a distribution of 50 or more stakeholders at least 2x per year
 - Organize 2 additional stakeholder meetings/events in addition to those required in the baseline contract
 - Conduct outreach to fleets – at least 15 fleets per reporting period
 - Conduct a focused series of half-day workshops on a particular fuel or vehicle technology – at least 3 workshops
- Period of Performance ends in September 2009 due to site support re-compete actions taking place at NETL
 - RDS Contract expires 11/14/2009
 - New site support contract should be established in a timely manner



Accomplishments / Progress / Results

- 100% of Annual Surveys Completed for 2007
 - Increase in Surveys Completed and in Data Quality
- 2008 Data Collection Period still open as of due date for this presentation

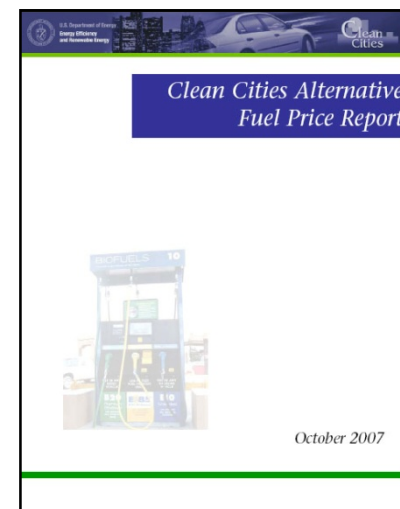
Annual Survey Completion





2008 Accomplishments / Progress / Results

- Quarterly Alternative Fuel Price Report
 - Significant increase in coalitions submitting data



Alternative Fuel Price Report Data Collection





2008 Regional and National Meetings

- Regional Meetings
 - South Central and Northwest Regions, April 2008 (Santa Fe, NM)
 - 2 ½ Day Meeting
 - 30 Coordinator Attendees
 - Western Region, June 2008 (Diamond Bar, CA)
 - 2 ½ Day Meeting
 - 17 Coordinator Attendees
- National Leadership Retreat
 - September 2008 (Big Sky, MT)
 - Activities with Yellowstone National Park
 - 3 Day Meeting
 - 76 Coordinator Attendees





Future Work

- Complete Coalition Support & Data Collection activities for 2008, and complete the awarding of similar contracts for 2009 and beyond
- Hold combined regional meeting for the Northeast, North Central and Southeast regions in Pittsburgh, PA (June 2009)
- Hold National Leadership Retreat in Great Smoky Mountains National Park (November 2009)



Overview – Clean Cities Transportation Sector Petroleum Reduction Technologies Commercial Deployment

Timeline:

- Project Start Date: 9/30/06
- Project End Date: 9/30/10
- Percent Complete:
 - 61% of stations completed
 - 80% of terminals completed
 - 95% of outreach completed
 - 50.2% of federal outlays spent

Budget:

- Total Project Funding: \$8,565,249
- Funding Received in FY08: \$4,140,657 (fully funded)

Barriers Addressed:

- Presence of supporting infrastructure for alternative fuel vehicles
- Incremental cost of obtaining alternative fuel vehicles
- Idle reduction training and awareness for school districts

Partners:

- 16 geographically diverse projects
- Projects led by States, Local Governments, Industry Partners, Clean Cities Coalitions and collaborations of the above



Barriers Encountered/Lessons Learned

- UL Certification of E85 Dispensers
- Economy / Price Inversions
- General lack of knowledge of biofuel issues and immature state/local policies, regs, codes, etc
- High turnover rate for recipient employees and stations relative to original proposals
- Streamlined NEPA process
- Easy to meet 50% cost share with infrastructure projects



Clean Cities Transportation Sector Petroleum Reduction Technologies Commercial Deployment

Funding Opportunity Number: DE-PS26-06NT42770

- The objective of this announcement was to decrease the nation's dependence on petroleum in the transportation sector through providing financial support for commercial deployment projects in the following areas:
 - 1) Refueling Infrastructure for E85 and Other Alternative Fuels
 - 2) Incremental Cost of AFVs
 - 3) Idle Reduction Training and Awareness for School Districts



Accomplishments / Progress / Results

16 Projects Selected (Awarded September 2006)

- \$26.3M in Cost-Shared Projects (\$8.5M Requested DOE funds)
- Funding awarded in FY06, FY07 & FY08
- Refueling Infrastructure for E85 and Alternative Fuels
 - 13 projects reaching 200 locations in 28 states and DC
 - 2 Natural Gas Projects (1 CNG and 1 LNG)
 - 7 E85 Projects
 - 2 Biodiesel Projects
 - 2 Ethanol/Biodiesel Combined Projects
- Incremental Cost for Alternative Fuel Vehicles
 - 1 Propane project
- Idle Reduction Training & Awareness for School Districts
 - 2 projects



Accomplishments

- **198** Alternative Refueling Stations Constructed/Retrofitted
 - 177 E85 Stations (total includes +9 Kum & Go +72 from Colorado)
 - 16 B20 Stations
 - 5 CNG Stations
- **10,744,545** Total Gasoline Gallon Equivalents (GGEs) of Petroleum Displaced from New Stations
 - 18,177,641 gallons of E-85
 - 1,405,119 gallons of B20
 - 291,652 GGEs of CNG
- **7** Biodiesel Terminals Constructed
 - 48,300,165 gallons of B99
- **2** Idle Reduction Projects Completed

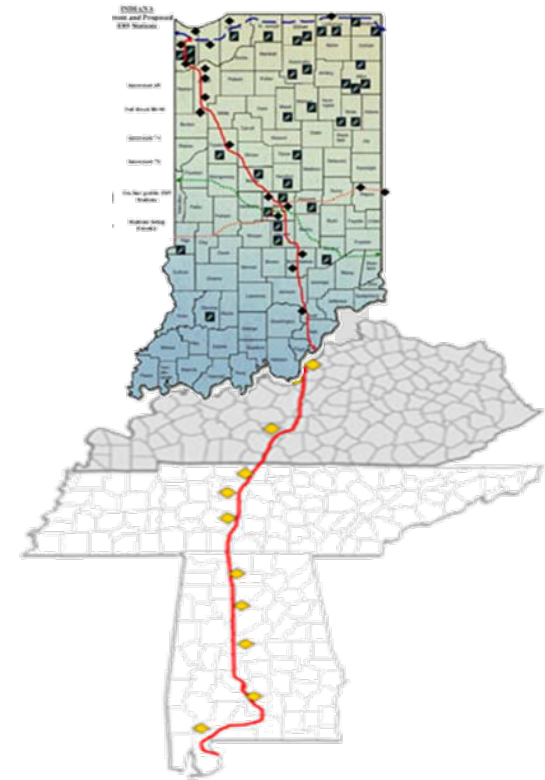


I-65 Biofuels Corridor Project

AMERICA'S FIRST
BIOFUELS CORRIDOR



- The Indiana Office of Energy & Defense Development was awarded \$1.3 million from DOE to fund E85 and B20 fueling stations along Interstate 65 from Gary, Indiana to Mobile, Alabama
 - 886 Miles of I-65 in the states of Indiana, Kentucky, Tennessee and Alabama are impacted by this project
 - 31 E85 and 5 B20 pumps funded
- Project Status:
 - 17 E85 & 6 B20 sites are operational
 - **1,815,013 gals** of E85 and **449,532 gals** of B20 dispensed
 - Corridor Drive Media Outreach event in Oct 2008



With the current stations in place, one can travel the entire length of I-65 and be no more than a half of a tank from the nearest E85 station. The goal is to be no more than a quarter of tank away.

Maximizing Alternative Fuel Use and Distribution in Colorado

- State of Colorado Governor's Energy Office was awarded \$388k from DOE to maximize the use and distribution of E85 and other alternative fuels throughout Colorado
- Project Status:
 - 72 E85 and/or Biodiesel stations established through 2008 by the Governor's Biofuels Coalition (6 of which have been funded directly by DOE share)
 - **Over 7.9 million gallons of E85** were sold in 2008. up from 5,800 gallons in 2006
 - **278,000 gallons of biodiesel** were sold in 2008, up from 4,883 in 2006



Kum & Go Midwest/Mountain Alt Fuel Initiative

- Fuel retailer Kum & Go was awarded \$1.3 million from DOE to install E85 refueling infrastructure at 24 retail stations.
 - 19 sites are in Iowa, 3 sites in South Dakota and 2 sites in Minnesota.
- Project Status:
 - 18 sites in IA, 3 sites SD, and 2 sites in MN are operational
 - Additional 9 sites operational (3 CO, 3 NE, 1 AR, 1 MO, 1 OK)
 - **2,788,122 gals** of E85 dispensed





National Biodiesel Board- Biodiesel Terminal Blending Project

- The National Biodiesel Board was awarded \$494,998 from DOE to install or modify 6 biodiesel blend terminals that will dispense biodiesel 24 hours a day, 365 days a year
 - Terminals located in NY (2), PA, FL, IL, and IA
- Project Status:
 - 5 of 6 terminals completed
 - **48,300,165 gals** of B99 dispensed



Hartford Woodrider Terminal in Seymour, Indiana installed a 30,000 gal fully automated biodiesel blending system

Northwest Corridor Project

- The Lane Regional Air Protection Agency (LRAPA) was awarded \$0.7 million from DOE to fund E85 fueling stations from La Corner, Washington to Sherwood, Oregon along I-5
 - 258 miles of I-5 in Washington and Oregon are impacted by this project
 - 15 E85 pumps and 1 Wholesale Rack funded

- Project Status:
 - 8 E85 sites are operational
 - **952,285 gals** of E85 dispensed
 - Corridor Media Outreach event in Oct 2008
 - PSA playing on ABC, NBC, and ESPN
 - Remaining Stations planned for completion July 2009
 - Wholesale Rack planned for completion August 2009



Eugene, OR site was a Brownfield
and is now a solar power station.



Future Work

- Complete Phase 3 work of FY 06 awards and one year of pricing data collection for fueling infrastructure grants. Projects to complete in 2009-2010
- Review and select new proposals in FY09 under Solicitation DE-PS26-09NT01236-00



FY 09 Clean Cities Transportation Sector Petroleum Reduction Technologies Commercial Deployment

- Funding Opportunity Number: DE-PS26-09NT01236-00
 - **Area of Interest 1: Refueling Infrastructure for Alternative Fuels**
 - Subtopic Area 1A: Biofuel Retail Infrastructure Program
 - Subtopic Area 1B: Terminal Blending & Other Alt Fuel Infrastructure
 - Estimated Funding Available: \$1.3M-\$2.6M (FY09 & FY10)
 - Expected Number of Awards: 3-10
 - Cost Share Requirement:
 - For Subtopic 1A, DOE will fund up to 50% of the cost of the fueling infrastructure not to exceed a maximum award of \$50,000 per site.
 - For Sub-Topic 1B, DOE will fund up to 50% of the cost of the fueling infrastructure not to exceed a maximum award of \$150,000 per site.
 - **Area of Interest 2: Incremental Cost of Dedicated Alt Fuel Vehicles**
 - Only on-road, highway certified vehicles that operate exclusively on alternative fuels are eligible
 - Estimated Funding Available: \$800,000-\$1.6M (FY09 & FY10)
 - Expected Number of Awards: 4-8
 - Cost Share: DOE will fund up to 50% of the incremental cost of the vehicles and a 50% cost share is required



FY 09 Clean Cities Transportation Sector Petroleum Reduction Technologies Commercial Deployment

- Funding Opportunity Number: DE-PS26-09NT01236-00
 - **Area of Interest 3: Education and Outreach Workshops for Petroleum Reduction Fuels and Technologies**
 - Subtopic Areas for Ethanol (3A), Biodiesel (3B), Natural Gas and Propane (3C), and Fuel Economy and Idle Reduction (3D)
 - Estimated Funding Available: \$900,000-\$1.8M (FY09 & FY10)
 - Expected Number of Awards: 1-4
 - Cost Share Requirement: N/A
 - **Area of Interest 4: Alternative Fuel and Advanced Technology Vehicles Pilot Program (American Recovery and Reinvestment Act – ARRA)**
 - Seeking projects that will expand the use of alternative fueled vehicles & advanced technology vehicles
 - Infrastructure necessary to directly support these vehicles is also eligible
 - Limited expenses associated with operation and maintenance of vehicles, infrastructure and other associated equipment acquired through the program are also allowable
 - Estimated Funding Available: \$300M (FY09 & FY10)
 - Expected Number of Awards: Up to 30
 - Cost Share: Total project 50% cost share is required



Schedule for FY 09 Clean Cities Program Solicitation

1. Due Date For Proposals:

- Areas of Interest 1, 2, 3: March 31, 2009
- Area of Interest 4: May 29, 2009 (Round 1) and Sept. 30, 2009 (Round 2)

2. Award Dates:

- Areas of Interest 1, 2, 3: Notify applicants selected for award by June 09 & awards by September 09.
- Area of Interest 4: Notify Round 1 applicants selected for award by August 09, and awards by September 09, and notify Round 2 applicants selected for award by December 09 and awards by February 2010.

3. Total Estimated Funding Available:

- Areas of Interest 1, 2, 3: \$6 million in DOE funds over 2 year funding period (i.e. \$3 million in FY 09 funds & \$3 million in FY 10 funds).

Note: All funding estimates are contingent upon final Federal budget appropriations for FY09 and FY10.

- Area of Interest 4: \$300 million