

NATIONAL ENERGY TECHNOLOGY LABORATORY



DOE Update – Part Two Project Management Center (PMC) Overview



U. S. Department of Energy

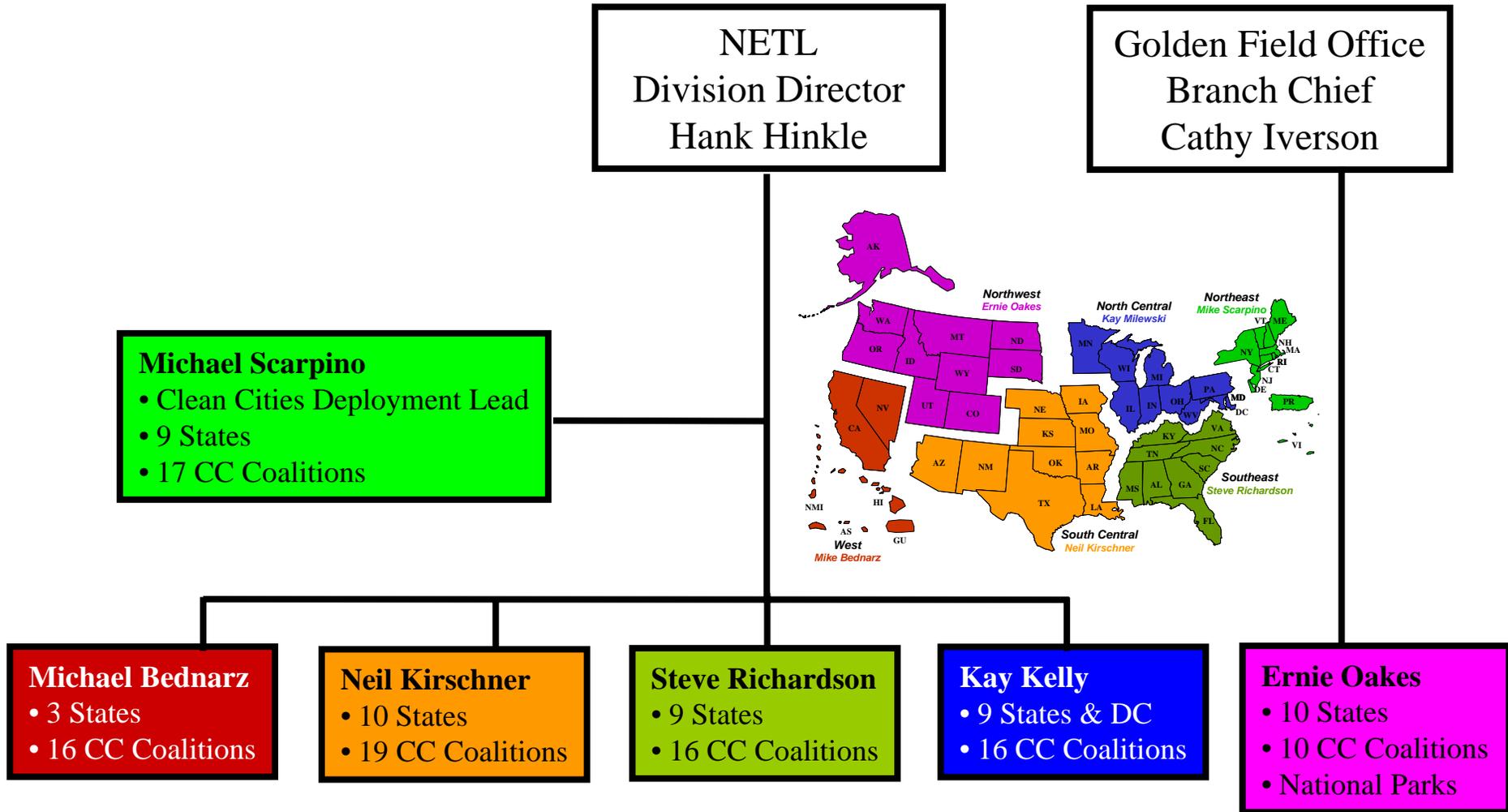
Clean Cities Regional Project Managers



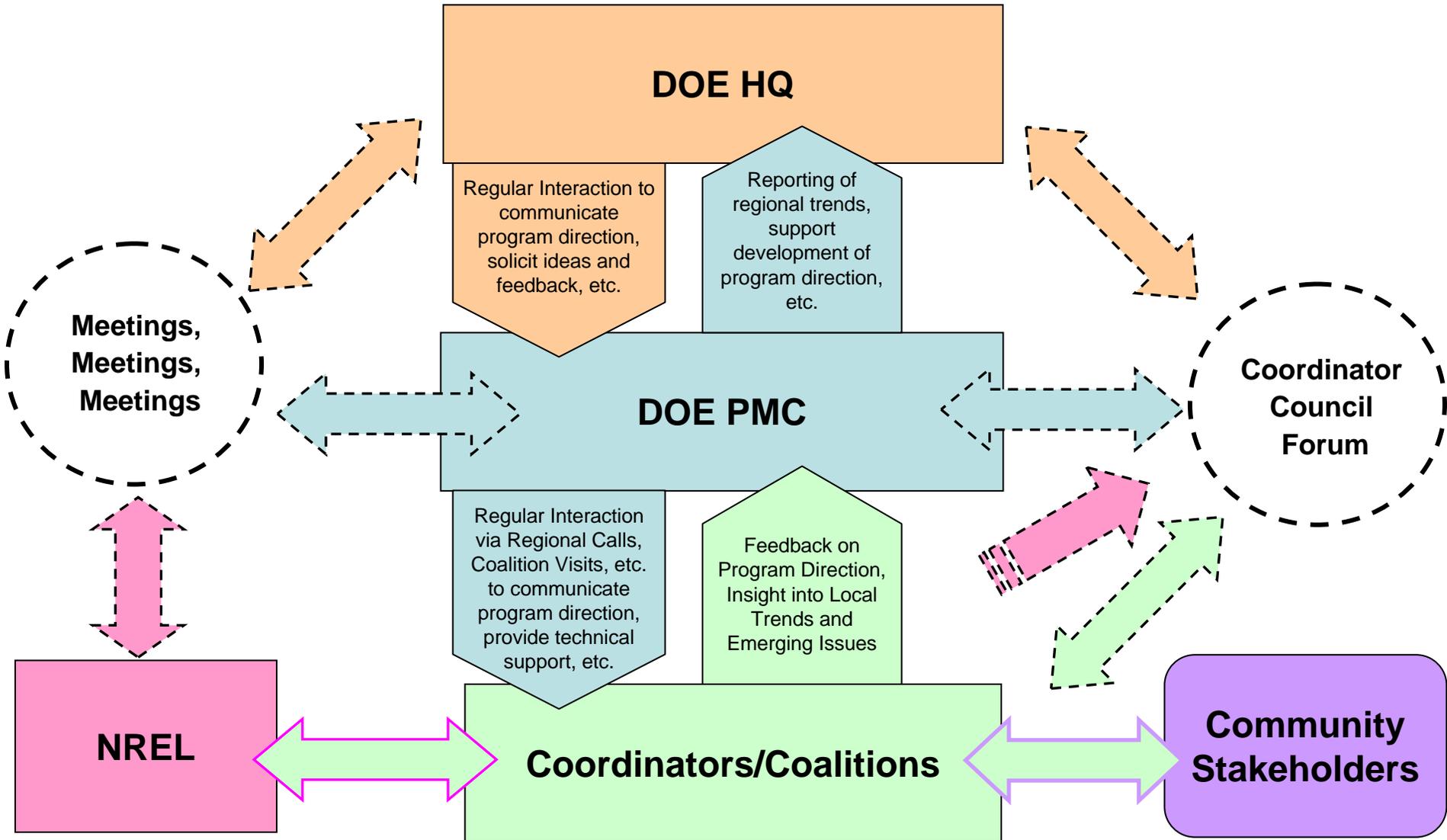
Overview

- **PMC Roles and Responsibilities**
 - Relationship to Vehicle Technology R&D
 - Project management duties
 - Issuing solicitations
 - FY 09 Clean Cities Solicitation
- **Regional Items of Interest**
 - Upcoming Regional Meetings
 - Upcoming Designations / New Designation Process
 - Miscellaneous Process Improvements
 - Future Regional Coverage
- **Regional Breakout Recap**

Project Management Center Structure



What do PMCs do all day?



Lines of Communication

- Contact with other DOE / NREL / New West team members via email or phone (hourly)
- Clean Cities PMC Team (weekly)
- Conference calls w/HQ, PMC & NREL (bi-weekly)
- Strategic Planning mtgs (semi-annually)

- Contact with coordinators via email or phone (daily)
- PMC lead Regional Coordinator calls/webcasts (monthly)
- Coordinator Council calls (monthly / bi-monthly)
- NREL lead webcasts (monthly / as-needed)

Clean Cities PMC Responsibilities

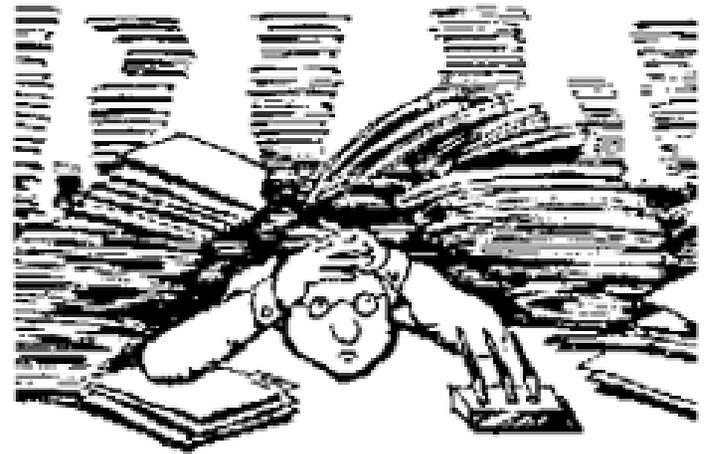
“Traditional” NETL / GFO Functions

- Project Management
- Administer funding (solicitations, contracts)

Unique Technology Deployment Functions

- Work with 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

Behind the Scenes: Managing Projects, Grants & Awards



Vehicle Technologies (VT) Portfolio



Vehicle Systems

- Aerodynamics
- Rolling Resistance
- Accessory Loads
- Systems Analysis and Target Setting

Hybrid Propulsion

- Hybrid Electric Systems
- Power Electronics
- Advanced Batteries
- Inverters/Controllers
- Motors

Advanced Combustion Engines

- Low Temp. Combustion R&D
- Emission Controls
- Light- & Heavy-Duty Engines
- Waste Heat Recovery
- Health Impacts

Fuels Technologies

- Bio-Based Fuels
- HCCI Fuel Characteristics
- Fischer-Tropsch Fuels & Blendstocks
- Advanced Lubricants

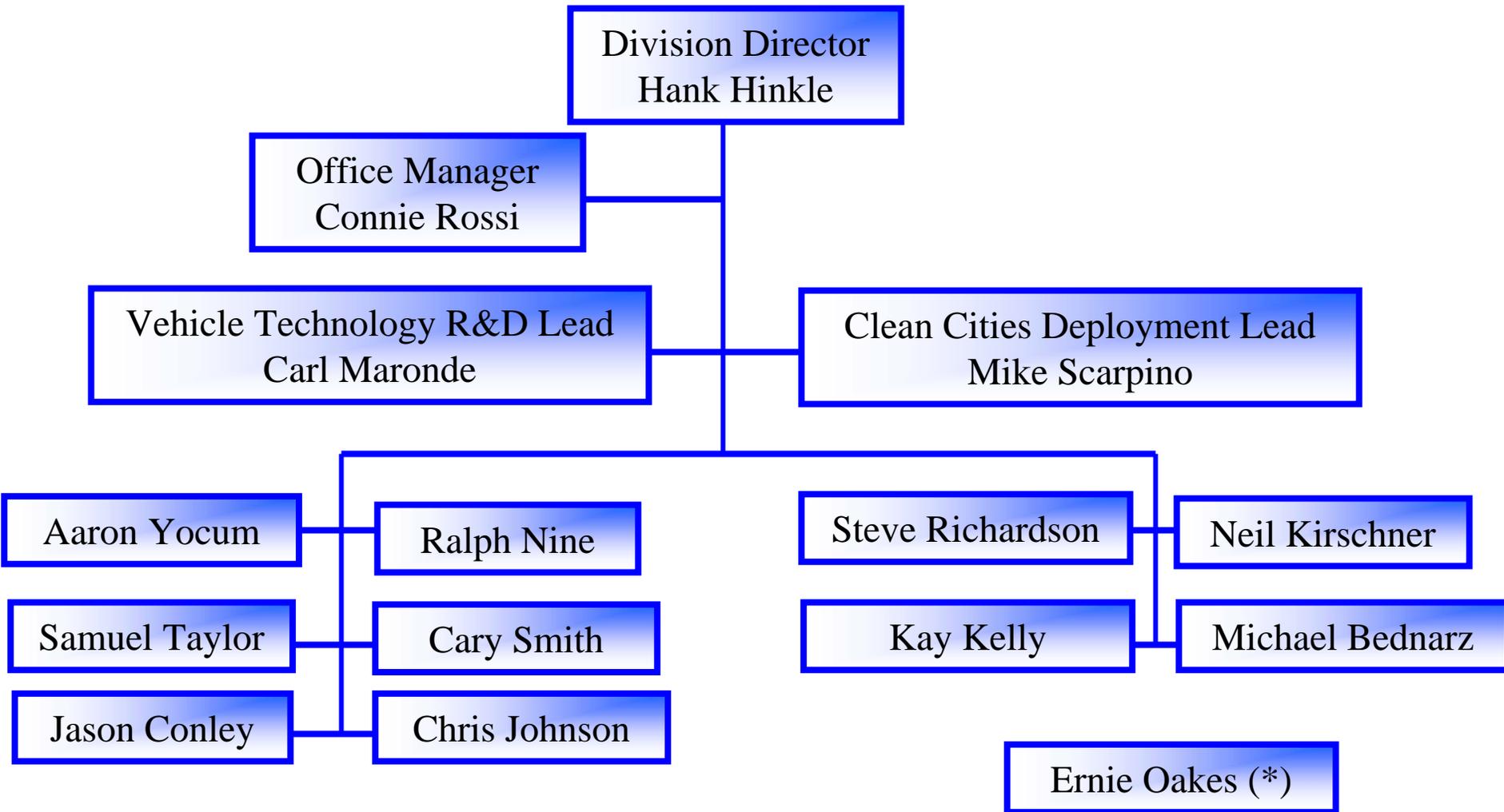
Tech Introduction

- EAct
- Legislative & Rulemaking
- Clean Cities
- Validation
- Student Competitions
- GATE

Materials Technologies

- Lightweight Structures
- Metal Processing
- Composite Development
- Processing and Manufacturing
- Design Data Test Methods
- Recycling Technology
- HTML

NETL - Vehicle Technology Organization



(*) Not aligned to NETL

Vehicle Technology R&D – Biofuels

- **Intermediate Ethanol Blend Emissions Testing**

- E15 could expand the market to ~ 22 BGY by 2017
- E20 could expand the market to ~ 30 BGY by 2017
- Testing of legacy fleet vehicles and small, non-road engines (generators, leaf blowers, line trimmers, etc.)
- Emissions, durability, driveability
- Testing will include E0, E10, E15 and E20



- **E85 and lower level ethanol blends Coordinating Research Council (CRC) tests ending in 2009**

- Materials compatibility
- Emissions
- Driveability



- **ORNL E85 Fuel Efficiency**

- Optimization of an FFV engine operating on E85 and intermediate blends

- **DOE recently made seven awards to develop a production-intended, ethanol optimized engine for FFVs**

Vehicle Technology R&D - PHEV Testing

- Benchmark/characterization testing in the laboratory and on-road
- Performance, efficiency, emissions and operational characteristics of conversion vehicles
 - EnergyCS Prius
 - 9 kWh Valence Li-ion pack replaces Ni-MH
 - Hymotion Prius
 - Additional 5 kWh A123 Li-polymer pack
 - Renault Kangoo Elect'road
 - 100 Ah, 132 V SAFT NiCd pack



FY08 PHEV Technology Acceleration & Deployment Solicitation

- DOE's Vehicle Technologies Program seeks to accelerate development of PHEVs that:
 - Substantially reduce petroleum consumption
 - Are fully compliant with FMVSS
 - Meet all relevant emissions regulations
 - Can be economically massed produced
 - Have (minimum) 10-mile cumulative UDDS electric range
 - Are biofuel capable
- Each awardee to demonstrate 80 PHEVs over 3 years
 - 10 PHEVs 1st year, 20 in 2nd year, 50 in 3rd year
- Cooperation with Clean Cities coalitions encouraged during deployment phase of project
- \$7 million first year, total of \$30 million over 3 years

VT Deployment – Example Projects

- **RDS Contract (Mike S. / All)**
 - DOE contractor RDS assists with information collection for various DOE projects
 - For our program,
 - RDS establishes contracts with coalitions to provide \$12.5k Coalition Support Contracts in exchange for minimum level of participation in program activities
 - Establishes Regional and National Meeting Contracts
 - Provides miscellaneous Travel Contracts for coordinators on “special assignment”
- **Legacy Grants (All)**
 - Old awards (~ '99 to '05) originally issued by the regional offices
- **2006 Clean Cities Awards (All)**
 - 16 Projects (13 Infrastructure, 1 Vehicle, 2 Idle Reduction)
- **Miscellaneous Awards**
 - Automotive X-Prize Education Program (Kay)

Automotive X-Prize

Automotive X PRIZE (AXP)

- Inspire new generation of viable, safe, super-efficient vehicles
- \$10 million in privately funded prizes to winning teams in race for vehicles that exceed 100 MPGe
- 120 teams from 17 countries, 28 U.S. states
- Sponsored by Progressive

AXP Education Program

- Educate public about alternative vehicles
- Encourage students to pursue careers in science and technology
- \$3.5 million in DOE funds for online knowledge center and national contests
- Managed by NETL for EERE



A Typical Solicitation – Pre-Award

- **HQ develops a requirements document to guide drafting of the solicitation**
- **PMC writes a solicitation based on the requirements document and advertises availability of funds**
- **Prospective applicants apply for assistance**
- **DOE reviews applications**
 - Initial screenings for completeness and adherence to instructions
 - Cost and budget analysis to determine necessity and reasonableness of costs in applicant budgets
 - Determination of applicant's ability to perform
 - Survey of prospective recipient's business management systems
 - Monitoring of the objective review process to ensure that all requirements have been carried out

A Typical Solicitation – Post-Award

- **DOE selects proposals for funding**
 - Negotiation of scope, activities, budget and terms/conditions
 - Notifications to award recipients, non-recipients and congressionals
- **Recipient conducts approved project and DOE monitors the award**
 - Review quarterly financial and project status reports
 - Review and submit NEPA documentation
 - Conduct site monitoring visits
- **DOE closes out the award at the end of the project**

FY09 CC Solicitation – Potential Categories

Infrastructure for Alternative Fuels:

- intend to fund a percentage of the infrastructure cost associated with developing alternative fuel fueling capability.

Incremental Cost of Alternative Fuel Vehicles

- intend to fund a percentage of the incremental cost associated with purchase of dedicated alternative fuel vehicles.

Education/Workshops:

- intend to provide technical support to transition biofuels and other alternative fuel refueling infrastructure to a scale and scope to support achievement of the President's Twenty in Ten goal. This may include educational materials, technical assistance, and workshops on subjects such as, Fuel Handling & Quality, First Responder Training, the safe and proper use of FFVs and E85 refueling equipment/stations, working with local public safety and regulatory officials, etc.

University/College Biofuels Integration Program

- intend to fund projects to support an integrated program from curriculum through application to demonstrate production and use of biofuels on campus (vehicle fleets, heating, off-road vehicles, etc.)

FY09 CC Solicitation – Potential Schedule

- Estimated Date to Issue Solicitation: November 21, 2008
- Estimated Due Date For Proposals: February 15, 2009
- Estimated Award Date: June 15, 2009
- Estimated Funding Available: \$6 million in DOE funds over 2 year funding period (i.e. \$3 million in FY 09 funds & \$3 million in FY 10 funds).

NEPA Compliance

- NEPA compliance required for each site before using Federal funds for activities:
 - Which may have an adverse affect on the environment
 - Limit the choice of reasonable alternatives
- Participant to fill out Environmental Questionnaire for each site
 - Answer questions as best as possible
 - Transmit signed copy to project officer
- Conversion or additions at existing facilities
 - Answers should describe only the changes to the facility
 - Provide copies of permits & site plans
 - Provide photo of site
 - Categorical Exclusions are expected

Quarterly Project Reporting

- Financial Status Report
- Project Status Report
 - Narrative Discussion
 - Facilities Summary Status
 - Milestone Status
 - Individual Facility Information and Status
 - Gallons of Fuel Dispensed
 - Price of Alt Fuel Sold
 - Price of comparable gasoline/diesel sold

PMC Items of Interest

Regional Focus Items for 2009 and Beyond

- **Regional / National Meeting Process Improvement Team**
 - Food Sponsorships vs. More CC Time on Agendas
- **Communication Improvement Team**
 - Strategies to improve the e-deluge
- **Clean Cities 101 / 201**
 - Improved training for new coordinators
 - “Clean Cities 101” Training Manual Under Development
 - Continuous learning opportunities for all coordinators
 - Webcasts with organizational management content

Upcoming Regional / National Meetings

- **2009 East Coast Mega Regional (March? June?)**
 - Northeast, North Central and Southeast Regions
 - Time and cost efficiencies realized by having one regional meeting per year instead of two
 - Trial run to determine if this is an adequate group size
 - Location: TBD

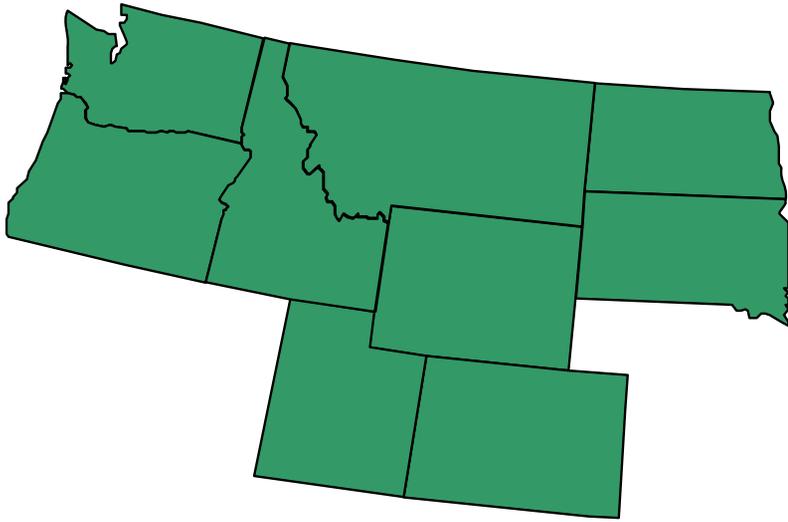
- **2009 National Leadership Retreat (Fall 2009)**
 - All Regions Involved
 - Location: TBD

Designations – NEW and IMPROVED!

- **Recent NEW designations**
 - Southeast Louisiana (March '08)
- **Upcoming NEW designations**
 - Program Plans Under Review
 - West Michigan
 - Program Plans Being Revised
 - Victoria, TX
 - West Tennessee
 - Program Plans Expected (wink wink nod nod)
 - Alabama
 - Land of Sky (Asheville North Carolina)
- **NEW and IMPROVED designation process**
 - Involvement of Coordinator Council and neighboring coalitions
 - Interview presentation with DOE officials



Future Regional Coverage



*Happy Retirement,
Ernie!*



- **Current plan is to bring in a replacement, but timing is uncertain**
- **Interim plans will be put in place to ensure the Northwest Region has adequate coverage until someone is hired**

Regional Breakouts

Top Issues Identified By Region

Region	Issues		
Northeast	Corridor Projects	Rising Expectations	Legislation / Incentives
North Central	Strategic Plan	Sustainable \$ / National Branding	Climate Change
Southeast	Strategic Plan	Sustainability	Fuel Corridors / Supplies
Northwest	VMT/Elimination Projects	New PMC	Fuel Corridors
South Central	Infrastructure	Policy / Gov't Support	Resources
West	Inventory of Stakeholder Needs	Inventory of Coordinator Skills	Training

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Moving Forward...

- **This is a starting point**
- **Conversations will continue throughout the year to develop action plans:**
 - Coordinator Council
 - Regional calls and meetings
 - DOE Planning meetings
- **Questions to answer:**
 - Which items are critical to address right away?
 - Which items can we address with our current staff and resources?

Any Questions ?