

# Clean Cities Recovery Act: Vehicle & Infrastructure Deployment

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Project ID: TI001

- **TIMELINE**

- Start: December 2009
- End: May 2014
- 25% Complete

- **BUDGET**

- Total Project Funding for **25** Projects:
  - \$796,350,912**
  - DOE: \$298,500,000
  - Cost Share: \$498,822,282
- Fully Funded w/ ARRA funds
- FY10 Funding = N/A

- **BARRIERS ADDRESSED**

- Availability of Alternative Fuel Vehicles
- Availability of Alternative Fuel Infrastructure
- Consumer Reluctance to Purchase New Technologies
- Lack of Technical Experience with New Fuels and Vehicle Technologies

- **PARTNERS**

- Clean Cities Coalitions
- State Energy Offices
- Other State Governments/ Agencies
- Local Governments/ Organizations

### OBJECTIVES:

- To **increase the use of alternative fueled vehicles and advanced technology vehicles** as a means to reduce U.S. dependence on imported petroleum, increase fuel economy and improve emissions.
- To **install infrastructure** that supports alternative fuel and advanced technology vehicles.
- To ensure that vehicles capable of using alternative fuel do so to the greatest extent possible.
- To **provide appropriate training for individuals associated with this project and in the larger community about the benefits of alternative fuel and advanced technology vehicles** and provide them with strategies that will help them to maximize these benefits.
- To **collect data** on the success of the project through collection of vehicle, infrastructure and training information.

### REQUIREMENTS:

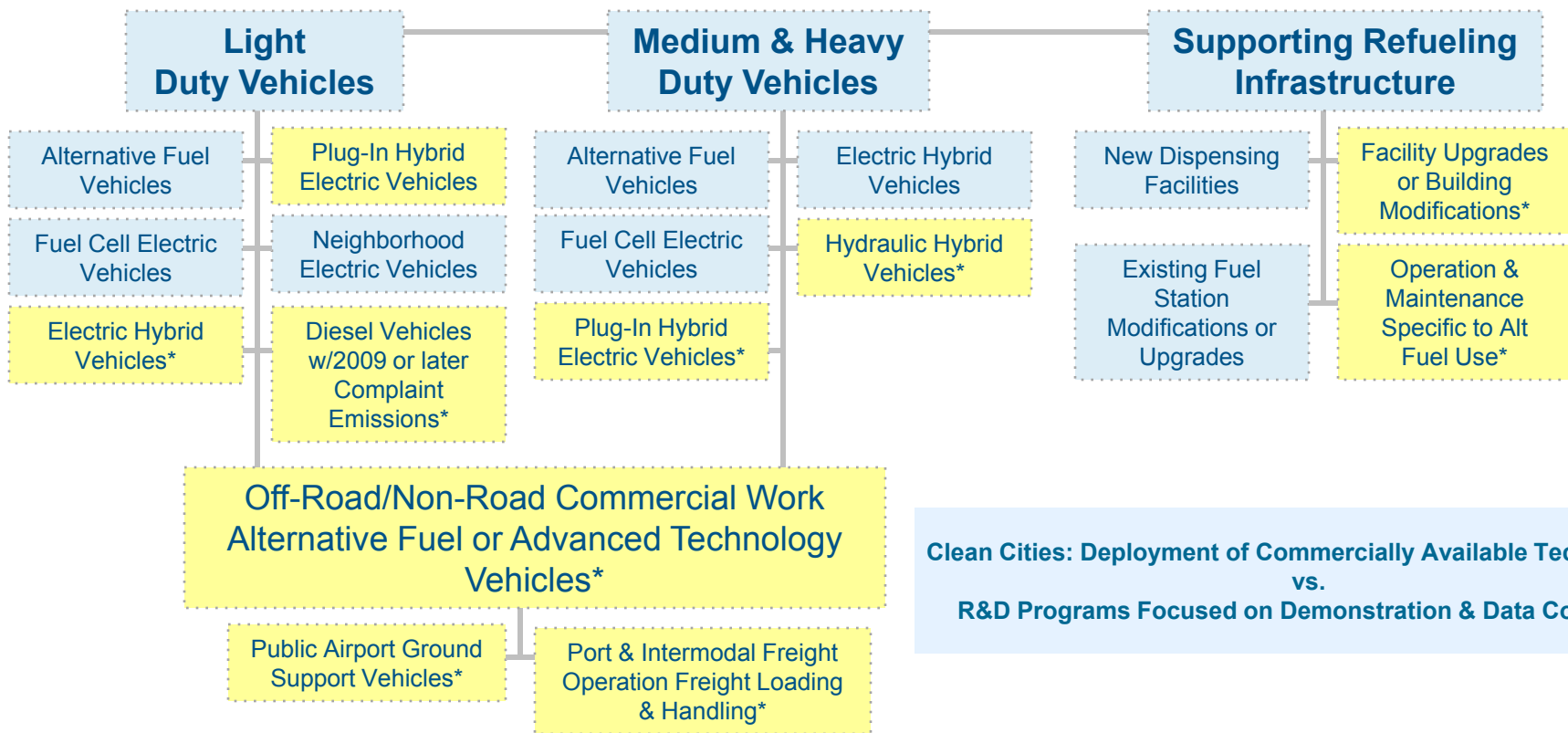
- Implement the requirements of EPCRA 2005, Section 721
- Applicants limited to State or local government or a metropolitan transportation authority or any combination of these AND a designated Clean Cities Coalition
- Geographically dispersed project awards
- No more than 30 projects
- Provide appropriate education and training for project participants and in the larger community about project benefits
- Collect data on the success of the project through collection of vehicle, infrastructure and training information
- “Shovel Ready” projects
- ARRA focused on creation and/or retainment of jobs

# RELEVANCE (cont.)

## Alternative Fuel & Advance Technology Vehicles Pilot Program



### Vehicles/Infrastructure Technologies Eligible For Funding

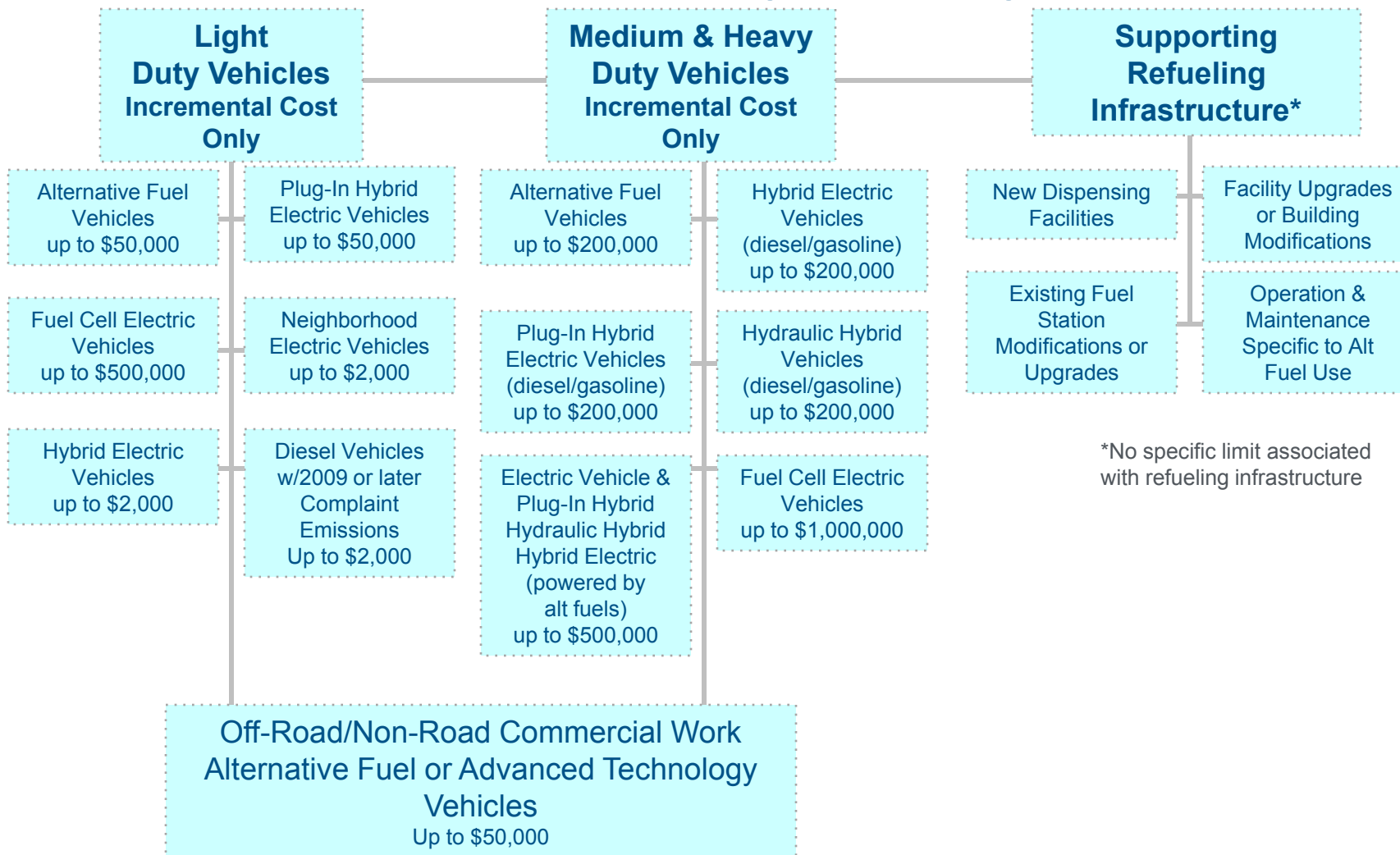


Clean Cities: Deployment of Commercially Available Technologies vs. R&D Programs Focused on Demonstration & Data Collection

Not Eligible: Marine Applications, Locomotives, Novelty Vehicles, Golf Carts, Snowmobiles, Off Road Recreational Vehicles

EPACT 2005, Section 721

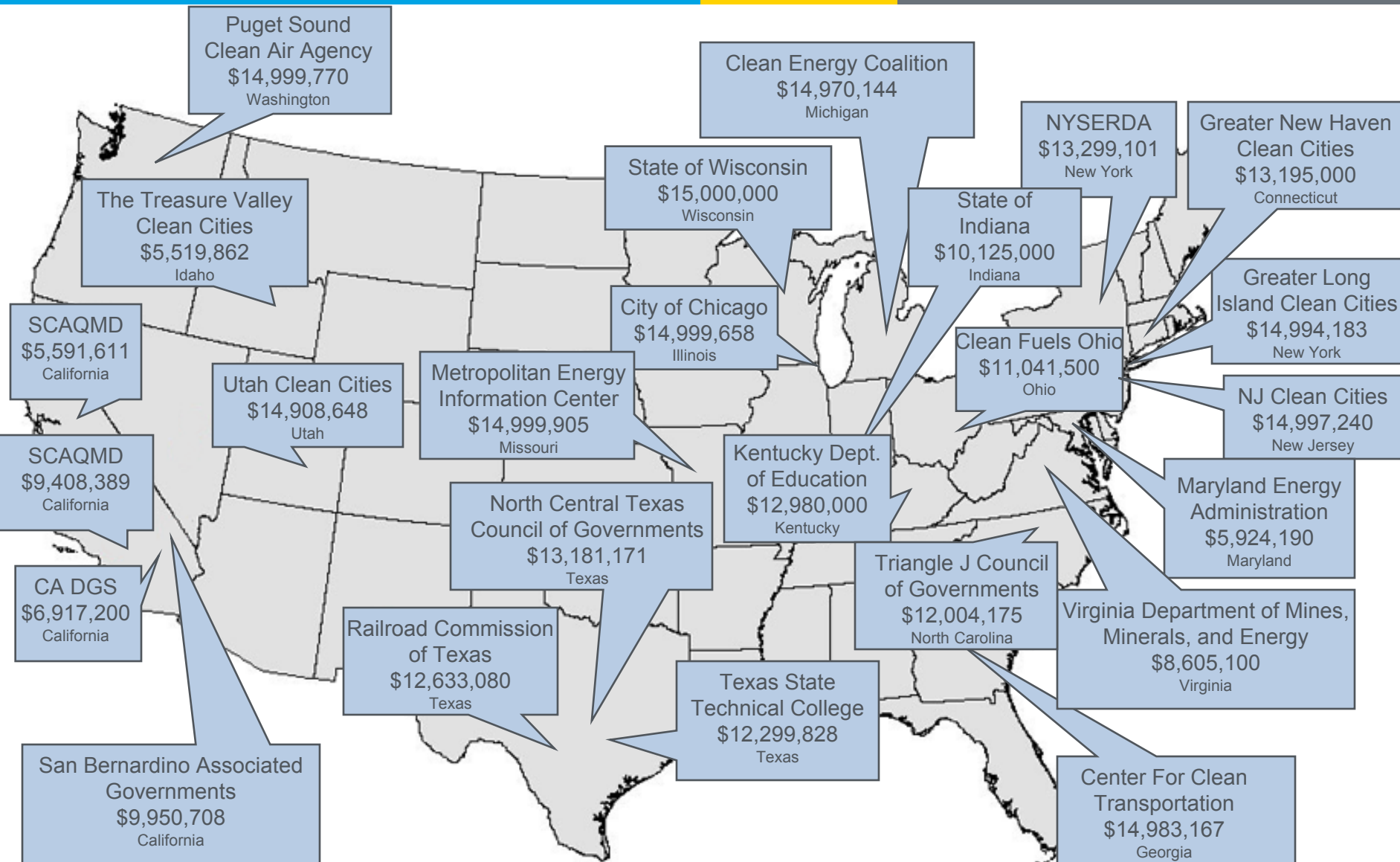
### Level of Eligible Funding



\*No specific limit associated with refueling infrastructure

# RELEVANCE (cont.)

## Clean Cities Recovery Act Awards Geographical Distribution



### **Task 1: Project Management and Planning**

- Subtask 1.1 Conduct a project kick-off meeting with all partners to plan and coordinate all project activities. This meeting will include representatives from the partner organizations and will include finalization of the project schedule and coordination of all project-related activities.
- Subtask 1.2 Finalize sub-recipient agreements with project partners.
- Subtask 1.3 Revise and update Project Management Plan.

### **Task 2: Vehicle Deployment**

- Subtask 2.1: Complete Vehicle NEPA process
- Subtask 2.2: Complete actions necessary to enable vehicle purchase or conversions. This could include, but is not limited to drafting specifications, issuing Requests for Quotes (RFQs), Evaluating Quotes, Selecting Vehicle Vendor, Negotiating Agreements with Vendor, etc.
- Subtask 2.3: Purchase and Take Delivery of Vehicles and/or convert vehicles.
- Subtask 2.4: Application of appropriate signage to vehicles stating that they are part of a US DOE Clean Cities Award and are powered by an alternative fuel and/or advanced technology.
- Subtask 2.5: Deployment of vehicles



### **Task 3: Infrastructure Development**

- Subtask 3.1: Complete Infrastructure NEPA process and obtain necessary permits
- Subtask 3.2: Complete actions necessary to begin construction and/or upgrades. This could include, but is not limited to drafting specifications, issuing Requests for Quotes (RFQs), Evaluating Quotes, Selecting Infrastructure/Fuel Hardware Vendor, Negotiating Agreements with Vendor, etc.
- Subtask 3.3: Installation/Development of Fueling Infrastructure
- Subtask 3.4: Application of appropriate signage to fueling infrastructure including all required federal, state and local fuel dispensing information including, but not limited to fuel contents, safety precautions, etc.
- Subtask 3.5: Application of appropriate signage to fueling infrastructure stating that it is part of a US DOE Clean Cities Award.
- Subtask 3.6: Infrastructure Operational

### **Task 4: Training Development & Delivery**

- Subtask 4.1: Identify specific training needs of vehicle operators, vehicle technicians, vehicle staff, refueling site supervisors, refueling site staff, individuals who will use refueling infrastructure and others as appropriate.
- Subtask 4.2: Develop training to address needs identified in subtask 4.1.
- Subtask 4.3: Provide training to appropriate audiences.
- Subtask 4.4: Perform on-going identification of additional training needs and hold follow-up training, as necessary.

### **Task 5: Outreach/Marketing**

- Subtask 5.1: Provide a plan for project marketing/outreach that informs the public on the progress of this project.
- Subtask 5.2: Execution of project marketing/outreach plan.
- Subtask 5.3: Documentation of all marketing/outreach conducted.

### **Task 6: Documentation & Reporting**

- Subtask 6.1: Monitor performance of vehicles for a period of 24 months after deployment. Documentation to include ridership, fuel usage, fuel costs, emissions, operation record, operation schedule, maintenance record, maintenance schedule, lessons learned, etc.
- Subtask 6.2: Monitor performance of infrastructure for a period of 24 months after deployment. Documentation to include quantity of fuel dispensed, average fuel price, etc.
- Subtask 6.3: Documentation of all training provided, attendance at training session(s) and evaluation of training success. Provide DOE with copies of any and all training provided.
- Subtask 6.4: Documentation of all marketing/outreach conducted.
- Subtask 6.5: Documentation of Clean Cities involvement in project.
- Subtask 6.6: Annual reporting of fleet data to local Clean Cities coalition for inclusion in the DOE Annual Survey.
- Subtask 6.7: Participate in DOE- or Industry-sponsored merit reviews, peer exchanges, conferences, etc. to provide project updates/lessons learned to ensure that the information and knowledge gained by project participants is shared.

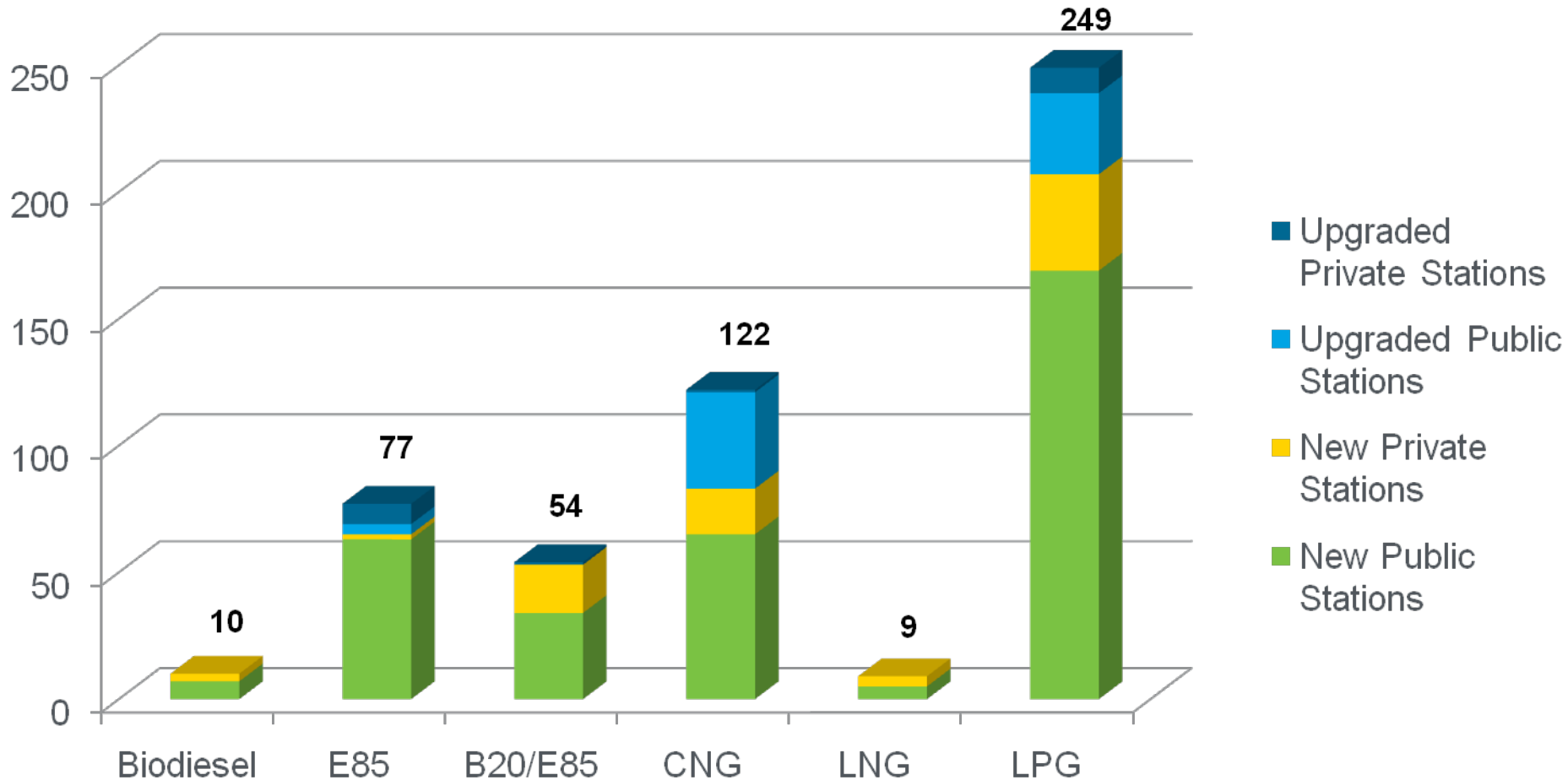
- **Year 1**
  - Finalize all sub-recipient agreements/contracts
  - All Fueling Infrastructure Permits & NEPA EQs submitted and approved
  - All Vehicles Ordered
  - All Fueling Infrastructure Equipment Ordered
  - Initial Vehicles Received & Deployed
  - Fueling Infrastructure Site Work started
  - Initiate Training Programs
  - Initiate Outreach/Marketing Programs
  
- **Year 2**
  - Complete Vehicle Deployment
  - Fueling Infrastructure Site Work Completed & Operational
  - Continue Training Programs
  - Continue Outreach/Marketing Programs
  
- **Years 3 & 4**
  - Complete Training Programs
  - Complete Outreach/Marketing Programs
  - Complete Data Collection

# ACCOMPLISHMENTS & PROGRESS

Planned New & Existing Refueling Infrastructure by Fuel and Accessibility



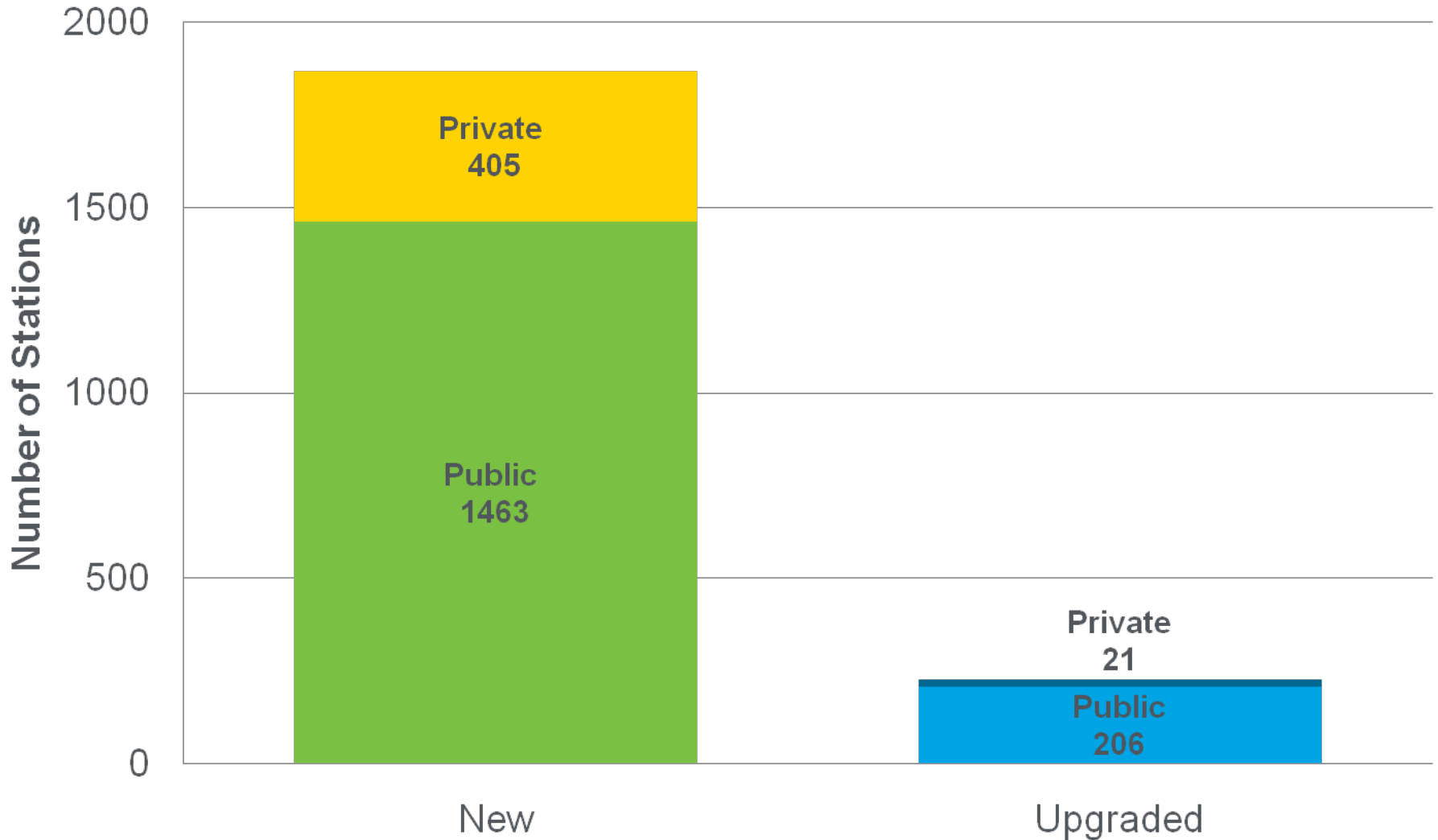
More than 2,000 alternative fuel refueling or charging stations will be installed or upgraded. Of these, 1,564 will be electric charging stations.



# ACCOMPLISHMENTS & PROGRESS (cont.)

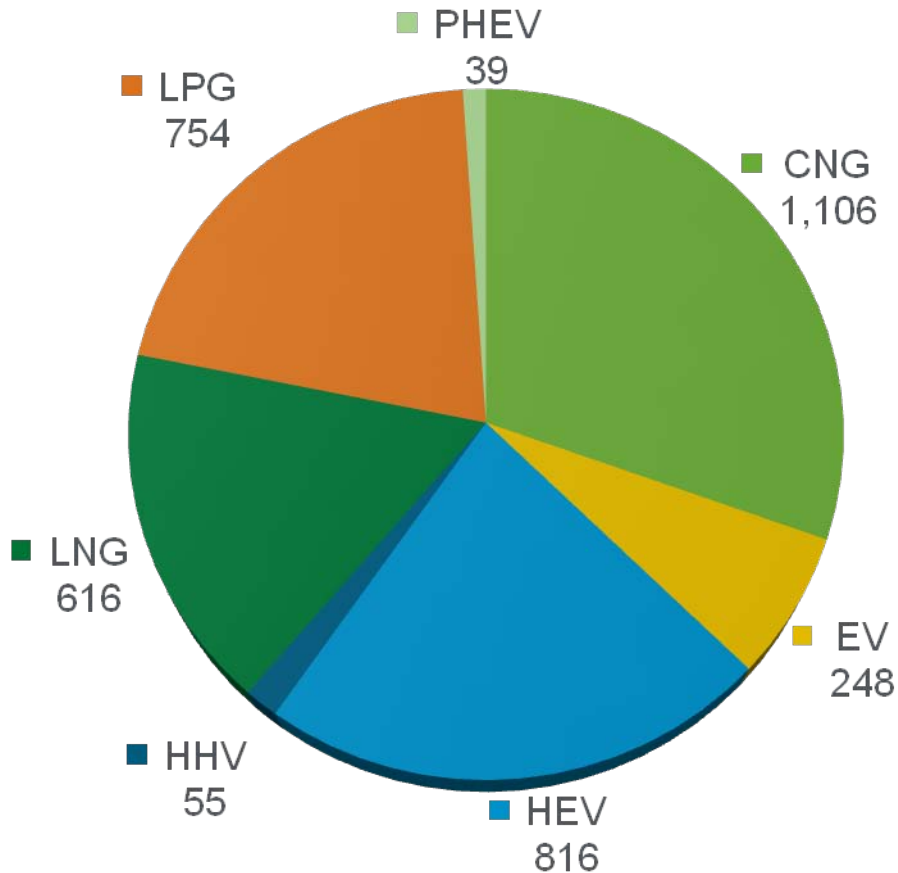


## Planned New & Existing Refueling Infrastructure by Accessibility



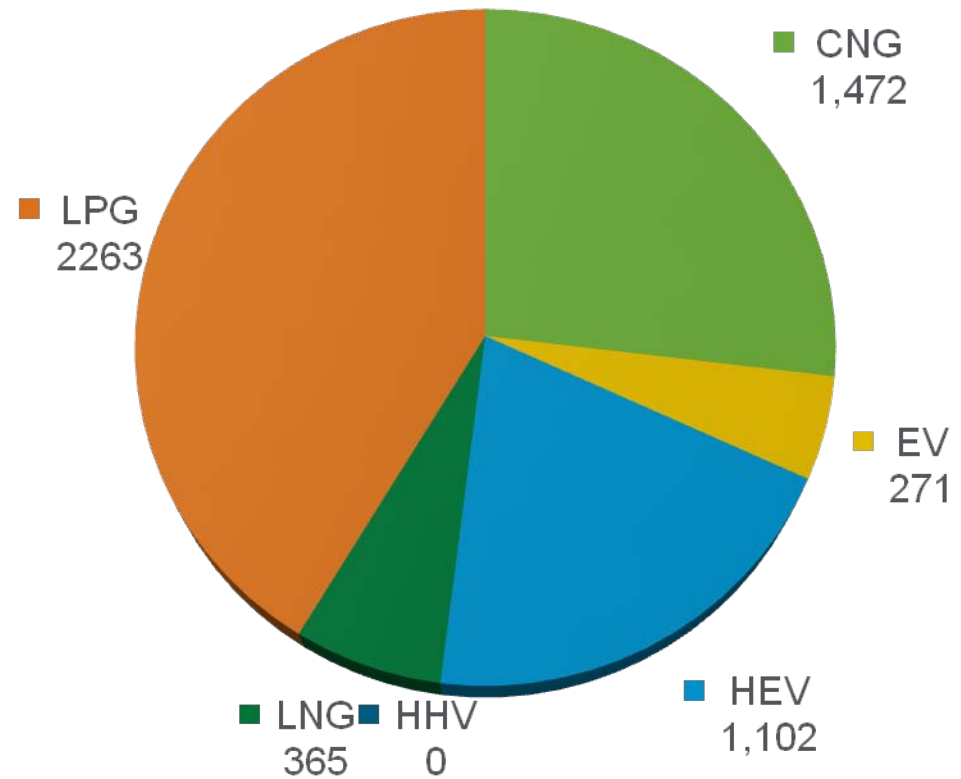
### MDV/HDV Distribution

3,634 vehicles



### LDV Distribution

5,473 vehicles



\*9,107 total planned vehicle orders



- **Clean Cities Coalitions**
  - Clean Energy Coalition (Ann Arbor)
  - New Jersey Clean Cities
  - Greater Long Island Clean Cities
  - Utah Clean Cities
  - Clean Fuels Ohio
  - Greater New Haven Clean Cities
  - Treasure Valley Clean Cities
  - Center For Clean Transportation (Atlanta)
- **Other State Agencies/Institutions**
  - Kentucky Dept. of Education
  - Texas State Technical College
  - California Dept. of General Services
  - Railroad Commission of Texas
- **State Energy Offices**
  - New York
  - Virginia
  - Indiana
  - Wisconsin
  - Maryland
- **Local Governments/Agencies**
  - Puget Sound Clean Air Agency
  - Triangle J COG
  - South Coast AQMD
  - San Bernardino Assoc of Govs
  - City of Chicago
  - No Central TX COG
  - Metropolitan Energy Information Center



# COLLABORATIONS

## Project Partners



- National Fleets

- United Parcel Service
- Sysco
- Coca Cola
- Verizon
- Waste Management
- Frito Lay
- Ryder
- Fed Ex
- Allied Waste
- Canteen Vending



- Other National Companies

- Staples
- ConnocoPhillips
- Marriott
- Hilton
- The Parking Spot



- Industry Partners

- Clean Energy
- Blossman Gas
- Clean FUEL USA
- Gas Technology Institute
- Propel
- National Alt Fuels Training Consortium
- Propane Education & Research Council
- Daimler Trucks North America
- Bluebird
- Freightliner Trucks
- CALSTART



- Utilities

- Questar Gas
- Peoples Gas
- National Grid
- Citizens Energy
- DTE Energy
- Commonwealth Edison



- Regional/Local Fleets/Companies

- Atlantic City Jitney Association
- Meijer
- Rumpke
- Enviro Express
- Manhattan Beer Distributors
- Westchester Ambulette
- Central Jersey Waste



- Colleges/Universities

- University of Missouri KC
- University of Michigan
- University of Wisconsin-Madison
- Washington State University
- SUNY-Albany
- James Madison University
- University of Utah



- Local Taxi Companies

- Red Top Cab (DC)
- Columbus Green Cabs (OH)
- Cleveland Yellow Cab (OH)
- Yellow Cab (Hartford CT)
- Happy Cab (Omaha NE)



- State/Local Governments/Agencies

- California Energy Commission
- Dallas-Ft. Worth Int'l Airport
- City of Milwaukee
- Seattle-Tacoma Int'l Airport
- Indiana DOT
- Ann Arbor Transportation Authority
- Wisconsin DOT
- LA Unified School District
- Nassau & Suffolk Counties (NY)
- Hartsfield-Jackson Atlanta Int'l Airport



- Major Project Activities for the Next Year
  - All Fueling Infrastructure Permits & NEPA EQs submitted and approved
  - All Vehicles Ordered
  - All Fueling Infrastructure Equipment Ordered
  - Initial Vehicles Received & Deployed
  - Fueling Infrastructure Site Work started
  - Initiate Training Programs
  - Initiate Outreach/Marketing Programs
- Enhanced Project Monitoring by DOE Project Managers
- Technical Assistance available from Clean Cities Program

- The Clean Cities Alternative Fuel & Advance Technology Vehicles Pilot Program's projects have commenced and are moving forward to meet aggressive progress and spending plans
  - **Relevance:**
    - **Increase the deployment of alternative fueled vehicles and advanced technology vehicles** as a means to reduce U.S. dependence on imported petroleum, increase fuel economy and improve emissions.
    - **Install infrastructure** that supports alternative fuel and advanced technology vehicles.
    - **Provide appropriate training for individuals associated with this project and in the larger community about the benefits of alternative fuel and advanced technology vehicles** and provide them with strategies that will help them to maximize these benefits.
  - **Approach:** Project Planning, Vehicle Deployment, Infrastructure Development, Training & Outreach/Marketing and Data Collection activities per the approved Project Management Plan
  - **Project Accomplishments/Progress:**
    - All Vehicles ordered during year 1 of projects
    - All Vehicles Deployed during year 2 of projects
    - All Fueling Infrastructure sites completed and operational during year 2 of projects
    - Training & Outreach/Marketing efforts initiated during year 1 and completed during year 3
  - **Collaborations:** Clean Cities Coalition leading or partnering with State and Local governments/agencies/organizations and numerous other private & public partners
- Efforts will continue through May 2014