

US EPA ARCHIVE DOCUMENT



# Illinois Clean Diesel Workgroup Update for the MCDI Leadership Group Meeting

September 17, 2009

# Illinois Clean Diesel Workgroup

U.S. EPA  
Illinois EPA  
American Lung Association  
Respiratory Health Association  
Cummins  
Navistar  
Caterpillar  
Cook County  
Inland Power Group  
Patten Industries  
Donaldson  
Autotherm U.S.A.  
Chicago Dept. of Environment  
Chicago Dept. of Fleet Mgmt.  
Chicago Metropolitan Agency for  
Planning  
Metropolitan Mayors Caucus  
IDOT

Commonwealth Edison  
Engine Control Systems  
Midwest Truckers Association  
Illinois Petroleum Council



**Illinois' Clean Diesel  
Grant/Funding Awards  
in 2008 & 2009**

IEPA Clean Diesel Retrofit Grants for EPA, CMAQ and SEPs for 2008 and 2009

| <u>Grant</u>                                    | <u>Funding Source</u> | <u>Federal Funding</u> | <u>SEP Funding</u> | <u>Applicant Matches</u> | <u>Total Project Cost</u> | <u>Status</u> |
|---|-----------------------|------------------------|--------------------|--------------------------|---------------------------|---------------|
| <b>EPA GRANTS</b>                               |                       |                        |                    |                          |                           |               |
| 2008 EPA State Allocation                       | EPA/SEP/Applicants    | \$295,320              | \$200,000          | \$438,600                | \$933,920                 | \$295,320     |
| 2008 EPA Competitive                            | EPA/SEP/Applicants    | \$678,604              | \$0                | \$654,699                | \$1,333,303               | IN PROGRESS   |
| 2009 ARRA State Allocation                      | EPA/Applicants        | \$1,730,000            | \$0                | \$1,449,000              | \$3,179,000               | \$1,478,700   |
| 2009 ARRA Competitive                           | EPA/Applicants        | \$4,172,335            | \$0                | \$2,591,234              | \$6,763,569               | IN PROGRESS   |
| <i>EPA Grant Subtotals</i>                      |                       | <i>\$6,876,259</i>     | <i>\$200,000</i>   | <i>\$5,133,533</i>       | <i>\$12,209,792</i>       |               |
| <b>CMAQ GRANTS</b>                              |                       |                        |                    |                          |                           |               |
| FY09 \$1 Million Diesel Retrofit (School Buses) | CMAQ                  | \$1,000,000            | \$0                | \$0                      | \$1,000,000               | ON HOLD       |
| FY09 Amtrak                                     | CMAQ                  | \$1,200,000            | \$0                | \$300,000                | \$1,500,000               | ON HOLD       |
| <i>CMAQ Grant Subtotals</i>                     |                       | <i>\$2,200,000</i>     | <i>\$0</i>         | <i>\$300,000</i>         | <i>\$2,500,000</i>        |               |
| <b>OTHER</b>                                    |                       |                        |                    |                          |                           |               |
| Metro-East ICSB SEP                             | Federal SEP           |                        | \$540,707.00       | \$0                      | \$540,707.00              | IN PROGRESS   |
| ICSB SEP  | State SEP             |                        | \$105,000          | \$0                      | \$105,000                 | \$0 - SPENT   |
| ICSB SEP  | Federal SEP           |                        | \$41,000           | \$0                      | \$41,000                  | \$0 - SPENT   |
| <b>Grand Totals for All Grants</b>              |                       | <b>\$9,076,259</b>     | <b>\$886,707</b>   | <b>\$5,433,533</b>       | <b>\$15,396,499</b>       |               |

**Details of Illinois EPA &  
Illinois Clean Diesel  
Workgroup's 2009 ARRA  
Approved Competitive  
Clean Diesel Grant**

| Location               | Name                             | Engine Type        | Control Type | # of Engines | Grant Request | Match Amount | Project Total |             |
|------------------------|----------------------------------|--------------------|--------------|--------------|---------------|--------------|---------------|-------------|
| Cook                   | Flying Food Catering, Inc.       | Delivery trucks    | DFH          | 18           | 44,723        | 0            | 44,723        |             |
| Cook                   | HMD Trucking Inc                 | Long Haul Trucks   | APU          | 40           | 356,160       | 152,640      | 508,800       |             |
| Cook                   | Kickert School Bus Lines, Inc    | School Buses       | DMF          | 60           | 336,756       | 0            | 336,756       |             |
| Cook                   | Pace Suburban Bus Service        | Transit buses      | DMF          | 60           | 390,000       | 0            | 390,000       |             |
| DuPage                 | Black Horse Carriers             | Long Haul Trucks   | DFH          | 30           | 146,925       | 0            | 146,925       |             |
| DuPage                 | ComEd                            | Utility Trucks     | DFH          | 40           | 253,760       | 0            | 253,760       |             |
| DuPage                 | Durham School Services LP        | School buses       | DOC          | 230          | 270,250       | 0            | 270,250       |             |
| Lake                   | Olson Transportation, Inc.       | School Buses       | DMF, DFH     | 33           | 216,435       | 0            | 216,435       |             |
| % of Funding Requested |                                  |                    |              | 48.3%        | 511           | 2,015,009    | 152,640       | 2,167,649   |
| Madison                | Stein Steel Mill                 | Off-Road Equipment | Repower      | 3            | 144,273       | 48,090       | 192,363       |             |
| Randolph               | Dynegy Midwest Generation        | Off-Road Equipment | Repower      | 1            | 48,930        | 16,310       | 65,240        |             |
| St. Clair              | American River Transportation Co | Barge Tugs         | Repower      | 3            | 690,834       | 1,924,965    | 2,615,799     |             |
| St. Clair              | Waste Management                 | Off-Road Equipment | Repower      | 3            | 77,879        | 25,959       | 103,838       |             |
|                        |                                  |                    |              | 23.1%        | 10            | 961,916      | 2,015,324     | 2,977,240   |
| Champaign              | Whiteline Express                | Long Haul Trucks   | APU          | 15           | 96,600        | 41,400       | 138,000       |             |
| Gallatin               | Arclar Black Beauty              | Mining Equipment   | Repower      | 3            | 172,260       | 57,420       | 229,680       |             |
| Kankakee               | Hoekstra Transportation LLC      | Long Haul Trucks   | APU          | 25           | 131,250       | 56,250       | 187,500       |             |
| Macon                  | ADM Renovations                  | Locomotive         | APU          | 8            | 336,000       | 144,000      | 480,000       |             |
| McLean                 | Bloomington Normal MTD           | Transit Buses      | DOC          | 25           | 37,500        | 0            | 37,500        |             |
| McLean                 | Nussbaum, Inc.                   | Long Haul Trucks   | APU          | 15           | 96,600        | 41,400       | 138,000       |             |
| Tazewell               | Olympia CUSD #16                 | School buses       | DFH          | 33           | 132,000       | 0            | 132,000       |             |
| Woodford               | Brubaker Transfer                | Long Haul Trucks   | APU          | 15           | 96,600        | 41,400       | 138,000       |             |
| Woodford               | R J R Transportation             | Long Haul Trucks   | APU          | 15           | 96,600        | 41,400       | 138,000       |             |
|                        |                                  |                    |              | 28.7%        | 154           | 1,195,410    | 423,270       | 1,618,680   |
| Proposal Totals        |                                  |                    |              | 100.0%       | 675           | \$4,172,335  | \$2,591,234   | \$6,763,569 |

Estimated Emissions Reduction Benefits  
 from Illinois Clean Diesel Grant Program  
 (September 15, 2009)

|   | Funding    | PM    |            | NOx      |            | HC    |            | CO2      |
|---|------------|-------|------------|----------|------------|-------|------------|----------|
|   | (Millions) | (TPY) | (Lifetime) | (TPY)    | (Lifetime) | (TPY) | (Lifetime) | (TPY)    |
| 2008 DERA Competitive                                       | \$0.68     | 0.2   | 3.01       | 4.66     | 69.43      | *     | *          | *        |
| 2008 DERA Allocation  | \$0.50     | 0.37  | 4.95       | 4.78     | 63.68      | *     | *          | *        |
| 2009 ARRA Allocation  | \$1.73     | 0.93  | 1.07       | 12.3     | 163.89     | *     | *          | *        |
| Illinois Green Fleets<br>2009 ARRA Competitive Grant        | \$4.21     | 6.3   | *          | 1,000.90 | *          | 9.2   | *          | 4,085.20 |
| Chicago Area Diesel Retrofit Program<br>FY2009 CMAQ Program | \$1.00     | 0.39  | 2.73       | 0.92     | 6.41       | 1.42  | 9.93       | *        |
| IEPA-Amtrak Locomotive Retrofit<br>FY2009 CMAQ Program      | \$1.20     | 0.85  | 5.92       | 16.5     | 115.5      | 2.7   | 19.2       | *        |
| Totals  | \$9.32     | 9.04  | 17.68      | 1,040.06 | 418.91     | 13.32 | 29.13      | 4,085.20 |

TPY - tons per year

\* Benefit not calculated

## Other 2009 ARRA Competitive Grant Applications submitted by IEPA

- **Terminal Railroad (Metro-East area):** requested \$2,070,000 to purchase 2 new ultra-low emitting GenSet locomotives
- **ADM:** requested \$700,000 to purchase 1 new ultra-low emitting GenSet locomotive
- **Norfolk Southern:** requested \$4,875,000 to purchase 5 locomotive engine repowers

## Illinois Clean Diesel: 2010

- Continue working with Illinois Clean Diesel Workgroup to spend remaining funds
- Primary focus is to implement current projects, working with vendors and applicants, and following up for reports
- Applying for new upcoming federal funding (2009 DERA State Allocation and Competitive grants)
- We have 84 IL Clean Diesel Grant Program applications on file
- Managing applicants and trying to fund all worthy projects with the available resources could be a challenge

# Illinois Clean Diesel Grant & Clean School Bus Programs

## Illinois Clean Diesel Grant Program

- [Fact Sheet & Guidelines](#)
- [Application Instructions](#)
- [Application Form](#)
- [Vehicle Information Spreadsheet](#)
- [W-9 Form](#)
- [EPA Verified Technologies List](#)
- [EPA Idle Reduction Technologies List](#)
- [APU Certification Requirements for Trucks Driving in California](#)
- [Required Matches](#)
- [Current Funding](#)



Information for both programs is on the Illinois Green Fleets website at [www.illinoisgreenfleets.org](http://www.illinoisgreenfleets.org)

**Other Clean Diesel Grants,  
Projects, and Activities by  
the Members of the Illinois  
Clean Diesel Workgroup**



## Region 5 ARRA Clean Diesel Projects

- Summary: The ALAUM will be reducing diesel emissions in 502 diesel vehicles in 22 fleets across the states of Indiana, Wisconsin, Ohio, and Minnesota.
- Based on US EPA's diesel emission quantifier, it is expected that 53 tons of PM, 1,736 tons of NOx, 147 tons of CO, and 38 tons of VOCs will be reduced throughout the lifetime of this project. In addition 152,557 tons of CO2 will be reduced.
- Total Project Cost: \$4,542,171, EPA Amount \$3,721,731, Match \$820,440

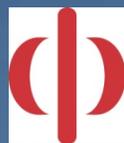
## ALAUM Clean Diesel Fleets and Types of Equipment to be Installed

| # of Vehicles | Ownership of Vehicle        | Types and Typical Use              | Engine/Retrofit Equipment       |
|---------------|-----------------------------|------------------------------------|---------------------------------|
| 26            | All Star Trucking, Inc      | Long Haul Trucking                 | Battery Powered AC              |
| 20            | Venture Logistics           | Long Haul Trucking                 | Battery Powered AC              |
| 22            | Jet Star, Inc               | Long & Short Haul Trucking         | Direct Fired Heater (DFH)       |
| 25            | National Distributor        | Long Haul Trucking                 | Battery Powered AC              |
| 37            | Erie Haven                  | Short Haul -Concrete Trucks        | Repower, DOC, & CCV             |
| 90            | Fort Wayne Community School | School Buses                       | Diesel Oxidation Catalyst       |
| 5             | Irving Gravel Co.           | Non-road Loaders                   | Engine Repower                  |
| 7             | School City of Mishawaka    | School Buses                       | DOC, CCV, & DFH                 |
| 5             | Speedway Redi-Mix           | Short Haul - Concrete Truck        | Engine Repower                  |
| 35            | Steel Warehouse             | Long Haul Trucking                 | Battery Powered AC              |
| 25            | Whitley Community School    | School Buses                       | DFH & DOC                       |
| 2             | S & G Gravel                | Short Hall – Aggregate Truck       | Engine Repower                  |
| 51            | Kingman National Lease      | Long Haul Trucking                 | Direct Fired Heater             |
| 30            | Mister P Express            | Long Haul Trucking                 | Battery Powered AC              |
| 35            | Trans Corp.                 | Long Haul Trucking                 | Battery Powered AC              |
| 20            | Milwaukee Transit District  | Short Haul - Public Transportation | Engine Repower                  |
| 3             | Airway Transportation Inc.  | Short Haul – Public Transportation | Diesel Particulate Filter (DPF) |
| 22            | City of Jeffersonville      | Short Haul – City Fleet            | DPF                             |
| 13            | Town of Clarksville         | Short Haul –Town Fleet             | DPF                             |
| 4             | Metro Gravel                | Short Haul – Gravel Trucks         | DOC                             |
| 5             | Transit Mix                 | Short Haul – Concrete Truck        | Engine Repower                  |
| 20            | Hiner Transport             | Long Haul Trucking                 | Battery Powered AC              |



## Activities since late 2008

- **Illinois Campaign to Clean up Diesel Pollution**
  - Continued co-lead with Citizen Action; launched in 2007
  - over 80 health/envr. groups, neighborhood orgs, institutions, unions, gov. units, etc.
- **Local Ordinance** - Advocated for Cook Co. IL Green Construction Ordinance, passed 5/2009; Retrofits for diesel engines on public funded projects; phased 2011-2016
- **Executive Order** - Worked with Office of Governor Pat Quinn to include green construction requirements; signed 4/2009; IDOT projects within NAA's must reduce non-road PM emissions 50%
- **Switcher Locomotive Replacement** - As in 2008, encouraged commercial rail companies, Metra and Amtrak to apply for CMAQ funding for replacements.
- **HB 2664** - Supported effort to increase idling fines, Illinois legislation signed into law 8/2009; fines raised \$50->\$90, \$150->\$500



## Activities since late 2008

- **DERA** - Pushed for \$1.5b ARRA funding and regular annual \$200m full funding; engaged Illinois Congressional delegation in Illinois and on DC advocacy trip to support and sign onto in support of higher funding levels.
- **Next Federal Transportation Bill** – advocating clean construction requirement in next 5 yr transportation funding bill
  - 55 Congressmen signed onto 'dear colleague' letter to Chairman Oberstar in support



# Green Construction Details - Illinois

- **Cook County Ordinance passed 5/22/09**
  - Affects PUBLICLY FUNDED construction projects >\$2m
  - -50% PM emissions within 2 years (2011); nonroad only
  - -85% PM by 2014 or 2016 (contractors/subs); on-road and non-road
  - Also requires onroad and nonroad ULSD use immediately (5/2009)
  
- **Governor Quinn Executive Order 4/11/09**
  - RHAMC worked early in the Administration to help develop 'green capital' ideas
  - Builds on requirements used on Dan Ryan I90/94 reconstruction (c.2005)
    - i.e. ULSD or requirement to use device that reduced PM 20%
  - Requires nonroad equipment on state-funded road construction projects in NAA's to utilize emissions controls that reduce PM >50%; ULSD mandatory.
  - IDOT developing implementation strategy now



# Genset Locomotives 2010-11

- **Chicago is rail nexus for the entire country**
  - DOUBLE locomotive pollution LA faces, 4X that of Houston
  - 1200 trains pass through region every day
  - Switcher engines generally old, idle a lot, never leave area
- **Genset benefits**
  - Up to +50% fuel economy, -80% emissions (without after-treatment)
  - Use of non-road engines can ease future addition of effective PM controls
- **Chicago Metropolitan Agency for Planning (CMAA) CMAQ approach**
  - 35% match private RR; 20% public RR
- 2009: >**\$11m** awarded (fed \$), 12 replacements.
- 2010: > **\$5m recommended** (fed\$), 3 projects
  - Final decision by 11/2009
- 2011: CMAP moving towards multi-year CMAQ programming
  - **\$18.75m** recommended (fed \$), 5 genset projects
  - **\$3.38m** recommended project (fed\$); Tier 2 conventional, not genset

# "Objective 3"

- High Speed Rail
- BIG push for regional High Speed Rail networks including Midwest
- Recent pledge by MW governors to work together (MOU) on joint proposal for federal funds (7/2009)
- Over \$8b in Stimulus/ARRA alone, potentially \$billions more from forthcoming 5 year transportation bill
- Tier 4 locomotive standards (-90% PM) not applicable until 2015
- Genset technology being developed for high speed passenger rail service
  
- **Golden opportunity to get cleanest, most fuel efficient diesel trains possible in new network centered on downtown Chicago**  
**OR**  
**Get high speed rail infrastructure with locomotives 9 times dirtier than they could have been**



Midwest Clean Diesel Initiative Leadership Group Meeting

CITY OF CHICAGO  
Recent Diesel Emissions Reduction Actions

Samantha Bingham  
Department of Environment



*Richard M. Daley, Mayor*

9/17/09

# Chicago's Environmental Agendas

- 2001 Chicago's Energy Plan
- 2003 Chicago's Water Agenda
- 2006 Chicago's Bird Agenda
- 2008 Chicago's Climate Action Plan
- 2009 Chicago's Air Action Agenda



DIESEL EMISSIONS REDUCTIONS: AIR ACTION AGENDA



*Richard M. Daley, Mayor*

# Chicago's Air Quality Agenda

## Preparing recommended amendments to the Air Ordinance:

### Phase I – Sept 2009

- Strengthen and update equipment air permitting program
- Neighborhood Electric Vehicle Ordinance (Feb)
- **Excessive smoking vehicle ban**
- **Idling diesel vehicle restrictions**
- Open burning restrictions



### Phase II – 2010 DIESEL EMISSIONS REDUCTIONS: AIR ACTION AGENDA



# ARRA Funding: National Clean Diesel Program

## National Clean Diesel Program – USEPA

**\$1 Million**

- 163 diesel-fired heaters
- 35 DOCs non-road
- 2 hybrid diesel electric aerial trucks



# Chicago Area Alternative Fuels Deployment Project

- Combined Benefits of the Project
  - 313 metric tons/yr in reduced emissions
  - 282 metric tons/yr in reduced CO2
  - \$63,000 saved/yr in fuel costs
  - 23 jobs created and/or retained
- Lead by Example

DIESEL EMISSIONS REDUCTIONS: CLEAN DIESEL GRANT



*Richard M. Daley, Mayor*



## Chicago Area Alternative Fuels Deployment Project

May 27, 2009

**Submitted To:**

US Department of Energy, National Energy Technology Laboratory

**In Response To:**

DE-PS26-09NT01236-04

**City of Chicago & Chicago Area Clean Cities**

**Coalition Contact:**

Samantha Bingham  
Environmental Policy Analyst, Clean Cities Coordinator  
Chicago Department of Environment  
30 N. LaSalle St., 25<sup>th</sup> Floor  
Chicago, IL 60602  
312-744-8096  
Fax: 312-744-5272  
Samantha.Bingham@cityofchicago.org

**GTI Contacts:**

Anthony Lindsay  
Manager  
Advanced Energy Systems  
1700 S. Mount Prospect Road



# Chicago Area Alternative Fuels Deployment Project

---

## —Goals

- Increase the number of alt fuel vehicles & hybrids
- Develop fueling & charging infrastructure to support growth of alt fuel use
- Reduce amount of petroleum used by transportation sector
- Generate local jobs
- Enhance regional air quality
- Reduce greenhouse gas emissions

DIESEL EMISSIONS REDUCTIONS: CLEAN CITIES  
GRANT



*Richard M. Daley, Mayor*

# Chicago Area Alternative Fuels Deployment Project

- 16 Fleets
- Total Project \$42,504,960
- Federal Funding Request \$14,999,658
  
- 554 Alternative Fuel & Hybrid Vehicles
  - 250 gasoline hybrids
  - 232 CNG vehicles
  - 68 PHEV conversions
  - 2 hybrid-electric diesels
- 153 Alternative Fuel Fueling Stations and Electric Vehicle Charging Stations
  - 8 public access CNG stations
  - 9 shared access CNG & E-85 stations
  - 136 (63 public access) charging stations

DIESEL EMISSIONS REDUCTIONS: CLEAN CITIES  
GRANT



*Richard M. Daley, Mayor*

# Chicago Area Alternative Fuels Deployment Project

## Projects Identified in Application

- Chicago Carriage
- **ComEd**
- City of Chicago
- Doreen's Pizza
- DuPage County Division of Transportation
- DuPage County Forest Preserve
- **Exel-Diageo**
- **Food Liner**
- **Groot Waste Haulers**
- **GTI**
- I-GO
- Peoples Energy
- TAS/Clean Energy
- Village of Downers Grove
- **Waste Management**
- ZipCar

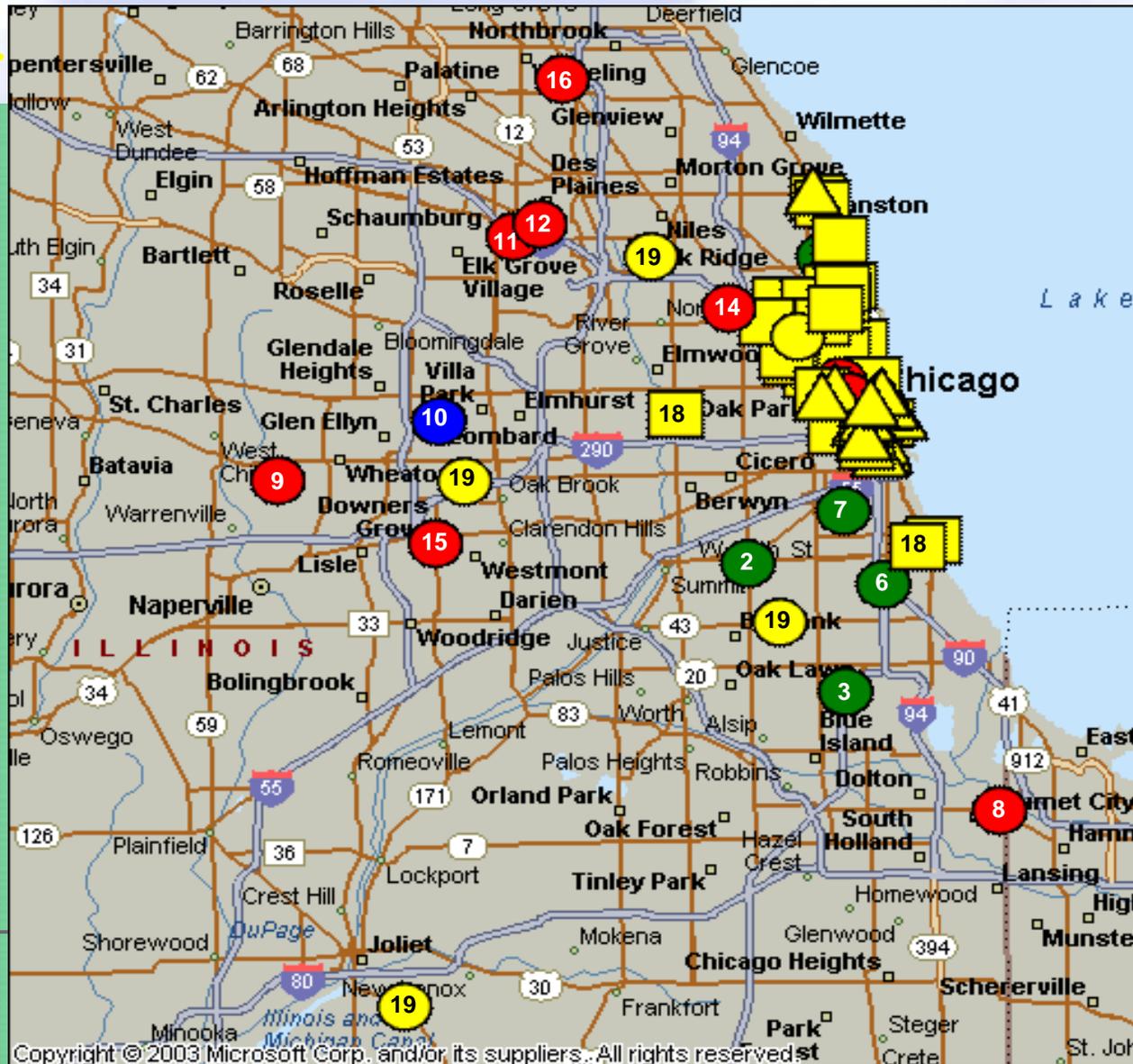
Diesel emissions reduction projects

DIESEL EMISSIONS REDUCTIONS: CLEAN CITIES GRANT



Richard M. Daley, Mayor

# Chicago Area Alternative Fuels Deployment Project



Copyright © 2003 Microsoft Corp. and/or its suppliers. All rights reserved.



Richard M. Daley, Mayor

# Chicago Area Alternative Fuels Deployment Project

- Combined Benefits of the Project
  - 448 metric tons/yr in reduced emissions
  - 7,647 metric tons/yr in reduced CO<sub>2</sub> (1390 cars/yr)
  - 3.8 Million gge of petroleum/yr displaced
  - 77 jobs created and/or retained
- Increased Visibility of Clean Cities Program
- Increased Public Awareness

DIESEL EMISSIONS REDUCTIONS: CLEAN CITIES  
GRANT



*Richard M. Daley, Mayor*