



The Road to Cleaner Air

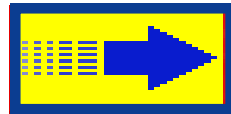
Newsletter of the
Ann Arbor Area Clean Cities Coalition
Summer 2003



The Alt Fuel Grants Keep Coming!

The Ann Arbor Area Clean Cities Coalition was recently awarded nearly \$60,000 in new grants to continue to bring alternative fuels and alternate fuel vehicles (AFVs) into our community. These grants will help reduce our reliance on imported oil and make our air cleaner to breathe. The federal government awarded a **\$20,000** grant to help move the Ann Arbor Area Clean Cities Program to a non-profit status. The coalition also received a **\$37,800** federal grant to construct an ethanol (E85) fueling facility to allow local fleets to fuel with an 85% ethanol fuel. Using this fuel supports our local farmers. The E-85 fueling facility will be built at the municipal garage unless the City can find a public access site for the station.

Other grants include AFV purchase incentives (**\$6,000**), biofuel purchase incentives (**\$7,000**) and funds to sponsor an alternative fuel training workshop (**\$2,000**). A **\$20,000** AFV incentive program and a **\$10,000** Low-Speed Electric Vehicle grant program are ongoing. Vehicles purchased include the LSEV flatbed pictured below. The local coalition's three-year grant incentive program, which ended in July, paid thirteen \$2,000 incentives on AFVs, for a total of **\$26,000**. The City is also purchasing a second large natural gas powered truck with **\$48,734** in federal grant funds. The first truck was purchased with **\$55,000** in federal grant funds.



Biodiesel Grants for Local Schools

Ann Arbor and Manchester Public School Districts were awarded grants from the Michigan State Energy Office to subsidize the purchase of biodiesel, which will reduce school children's exposure to harmful diesel emissions and help support farmers. Feedback from Ann Arbor and Manchester school bus managers has been overwhelmingly positive: both fleets have become so attached to biodiesel's cleaner, better smelling emissions and better performance that they would like to continue to use it if they can afford it. The two school districts teamed up to apply for an EPA "Clean School Bus Grant" on August 1, 2003. They hope to be awarded a grant that would help pay the cost premium for biodiesel, about \$0.15 per gallon, for the next two years. Increased demand will hopefully reduce the price of biodiesel closer to that of diesel in the future.



CLEAN CITIES MISSION STATEMENT

Clean Cities coalitions demonstrate a commitment to weaning public and private fleets away from dependence on imported oil. Our program goals also include cleaner air for our local communities' quality of life and public health. This year's disturbing events of global political instability and findings of increased harmful effects from air pollution highlight the importance of local level voluntary commitments to finding alternatives to fossil fuels, for our own well-being as well as for our economic security.

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ABOUT THIS NEWSLETTER

The Road to Cleaner Air is a bi-annual publication of the Ann Arbor Area Clean Cities Coalition, produced by the City of Ann Arbor Energy Office. Editors are David Konkle and Dulcey Simpkins. For information on the Ann Arbor Area Clean Cities Coalition go to cot.emich.edu/cleanair or contact Coordinator David Konkle at 734-996-3150; email dkonkle@ci.ann-arbor.mi.us. Find more information on the Clean Cities Program and alternative fuel vehicles at the National Clean Cities website: www.cities.doe.gov.

Biofuels Make Waves in Congress

The United States Senate recently created a Biofuels Committee, indicating the growing importance of renewable fuels like biodiesel and ethanol in national politics. Senators voted 84 to 14 in favor of the 2002 version of the Energy Bill that provided a 1-cent reduction of the diesel excise tax per percentage of biodiesel blended with diesel, up to 20 percent (B20). The bill also includes a Renewable Fuels Standard (RWS) that calls for the nation's fuel supply to increase its use of renewable domestic fuels, like ethanol and biodiesel, to 5 billion gallons by 2012.



EPA Regulates Nonroad Emissions

In April 2003, the EPA proposed emissions standards for non-road engines to reduce emissions of soot, known as particulate matter (PM), and nitrogen oxides (NOx) from today's engines by more than 90 percent. The proposal would take

effect for new engines starting as early as 2008 and be fully phased in by 2014. These non-road emissions rules, in combination with on-road diesel engine standards required by 2007, will give the US the most comprehensive regulation of diesel emissions in the world. For more information, visit <http://www.epa.gov/otaq/nonroad.htm>.



Ann Arbor Hosts Drive to Survive

From May 1-14, 2003 the Drive to Survive caravan made a two-week tour across the USA, from Los Angeles to Washington D.C., to promote alternative fuels. On May 10th, 2003, the Ann Arbor Clean Cities Coalition hosted the Drive caravan on its way to the White House with a petition to demonstrate public support for alternative fuels. Ann Arbor Mayor John Heitje received the Drive group and introduced actor Dennis Weaver, longtime environmentalist and Drive leader, to the crowd of 100 alternative fuel vehicle fans and supporters. Mr. Weaver spoke about the importance of considering the impact of fossil fuels on the next generation, and highlighted the tremendous benefits that would come from achieving fossil fuel independence. The following parade through downtown Ann Arbor included the caravan of 10 vehicles on the national team plus 25 local vehicles, including the City's brand new natural gas powered dump truck, the first of its kind in the US. At the pre-parade speeches, local Clean Cities Representative and Ann Arbor Energy Coordinator David Konkle noted, "We have over 600 alternate fuel vehicles operating in the Ann Arbor area. This parade will help demonstrate to the public that we are doing something locally to clean up the air and reduce our dependence on imported oil."



Ann Arbor's Cleanest Truck!



The City of Ann Arbor has purchased the nation's FIRST compressed natural gas (CNG) dump truck for use in a municipal fleet -- and the first heavy-duty CNG vehicle for the City of Ann Arbor fleet. This landmark purchase was assisted by a \$55,000 federal grant. It is part of the City's ongoing commitment to the goals of the Clean Cities program: pursuit of energy security and cleaner air through the use of alternative fuels. Both this dump truck and a new CNG canoe livery van were painted by local artist David Zinn with help from AATA to introduce citizens to the emissions benefits of using CNG. The artwork was funded by an educational grant from the State of Michigan. **NEWS FLASH!** The City has ordered a SECOND natural gas powered truck, due to arrive in January 2004.

Dump Truck Specifications

- Fuel Capacity: (3)17.6 gal CNG tanks
- Chassis: Freightliner FL-80 dump truck.
- Transmission: Allison MD 3060P 6-speed automatic.
- Engine: Cummins 8.3 G+ , the state of the art CNG engine used in California to meet standards more strict than federal level emissions limits. Operates at 275 horsepower @ 2400 rpm, 750 torque @ 1400 rpm

Emissions Benefits (tailpipe)

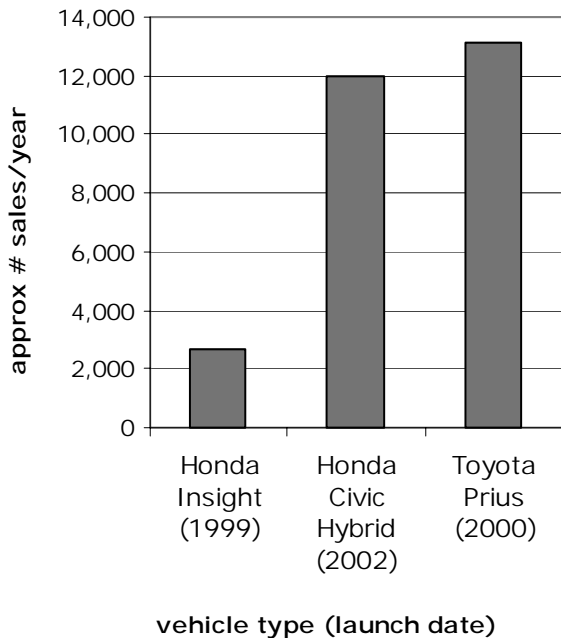
80% reduction in particulate matter (PM) emissions that carry air toxics and carcinogens deep into lungs

20% reduction in nitrous oxides (NO_x) that contribute to ozone and aggravate asthma

20% reduction in carbon dioxide (CO₂), a primary greenhouse gas



Average Yearly Hybrid Sales
in US Market, 1999-2003



Coming Soon:
US Competition for
the Hybrid Market
(release date)



Ford Escape (2004)



Saturn Vue (2005)

Big Three Hybrids?

Japanese owned companies Toyota and Honda currently have cornered the market on hybrid-electric vehicles. But the Big Three automakers have responded with their own efforts to enter this environmentally-conscious niche.

*Upcoming in 2004: the new Ford Escape hybrid, fuel economy estimated at 35-40 mpg city, up to 25% better than the standard Escape.

* For 2005, estimated fuel economy for the new GM Saturn Vue Hybrid is 40 mpg, a 38% improvement.

Birth of the Local Hydrogen Economy

On May 19, 2003, a hydrogen fueling station was unveiled at Ann Arbor's EPA National Vehicle and Fuel Emissions Laboratory. EPA Administrator Christine Todd Whitman, joined by DaimlerChrysler and UPS representatives, announced this collaboration between government, carmakers and business which is designed to put zero-emissions vehicles on the road in commercial service industries. DaimlerChrysler will supply the fuel cell vehicles for UPS, while the EPA will supply a hydrogen refueling station at its Ann Arbor facility. The fueling station will be operational by the end of 2003 and will provide compressed hydrogen fuel to the UPS vehicles as well as other fuel-cell cars in the area.



The relationships forged between UPS and DaimlerChrysler will ideally catalyze a movement toward wider integration of alternative fuel vehicles into large fleets. "It's time to deploy this technology in a commercial fleet and learn exactly what's needed to make it broadly available," said Tom Weidemeyer, chief operating officer of UPS. Michigan Governor Jennifer Granholm, Senator Carl Levin and Representative John Dingell were also present to witness the beginning of what could be the hydrogen era here in Southeast Michigan. The hydrogen fueling station in Ann Arbor offers a unique opportunity for local fleets interested in testing fuel cell vehicles for their own purposes. Although fuel cell vehicles are still very expensive, there may be grant funds available to help defray costs. Data from HydrogenNow! and EPA.

Municipal LSEVs

The City of Ann Arbor recently added two low-speed electric vehicles (LSEVs) to its fleet, a 4-person sedan and a flatbed truck. They may only have a top speed of 25 mph and a range of 30 miles, but they are legal on any public street with a speed limit under 40 mph. This means they can go almost anywhere in Ann Arbor. They can recharge up to 80% in a couple of hours by simply plugging them into a 110v outlet or generator and cost less than 2 cents/mile to operate. These electric cars are ideal for in-town errands. The small electric "truck" used by parks has enabled staff to take a much lighter-impact vehicle in park lands and on trails. The "sedan" is used as a motor pool car available to many departments, from the Mayor's Office to the Police. Police Chief Dan Oates found it useful during the Art Fair, where crowded streets can make travel difficult. Users have commented that the vehicles are fun to drive. The City Utilities Department will be testing one of these vehicles for use in meter reading.



LSEV Stats and Specs

EV: 25 miles on 6.2 kwh charge=\$0.40 fuel cost VS. Small Car: 25 miles at 24 mpg city=~\$1.65 fuel cost
100% reduction in particulate matter (PM) tailpipe emissions
99% reduction in greenhouse gas emissions compared to standard small vehicle (e.g. Cavalier)

Diary of an EV Owner

Ann Arborite Charles Pekarek purchased a Ford Th!nk Neighbor electric vehicle with a \$1,000 rebate from the Ann Arbor Energy Office, and updated City staff on his experiences in July 2002.

Dear Dulcey,

I am having a lot of fun driving my Ford Think Neighbor around Ann Arbor. I tell people that it has turned Ann Arbor into my own personal theme park. I get many smiles, waves, and looks of stunned amazement. In the grocery store parking lot I frequently have to stop and answer questions. By and large, response has been positive.

Not all however. You might know that my top speed is 25 mph and that I am limited to streets with speed limit of 35 mph or less. ... I get the occasional motorist who wants to go 50 mph and gets stuck behind me momentarily. The first chance they get, they go roaring past me with an irritated look on their face. ...Their displeasure only increases when I catch up to them at the next red light....

Tonight I will pass 700 miles on the odometer. Overall, I'm having a ball. I really think that electric cars are the way of the future and I was sorry to hear that Ford stopped making them. They will make a comeback, of this I am sure. And I'm happy to be in the vanguard of what will someday be commonplace.

Charlie Pekarek

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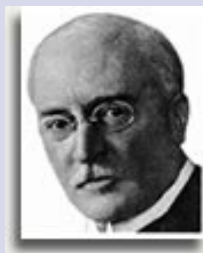


Biofuel--The Original Energy Source

In the late 19th Century, Rudolph Diesel had an "explosive" near-death experience with powdered coal (gunpowder!) in his prototype internal combustion engine. That experience convinced him to use a less volatile substance--peanut oil--to power the engine that today bears his name. The biodiesel industry chose Diesel's birthday (March 18th) as **National Biodiesel Day** to honor his insights about biofuels.

(www.nbb.org, the National Biodiesel Board Website)

Ouch! Better use biodiesel.



Rudolph Diesel (1858-1913)

ANN ARBOR AREA CLEAN CITIES STAKEHOLDERS

- ✧ City of Ann Arbor
- ✧ Washtenaw County Government
- ✧ Ann Arbor Transportation Authority
- ✧ Ann Arbor Public Schools
- ✧ University of Michigan
- ✧ Eastern Michigan University
- ✧ DTE Energy
- ✧ Ecology Center
- ✧ U.S. E.P.A. National Vehicle and Fuel Emissions Laboratory
- ✧ Michigan Department of Environmental Quality--Air Quality Division
- ✧ Michigan Department of Consumer Industry Services--Energy Resources