



Clean Cities



2006 Report

Tucson Region, Arizona



Tucson Regional Clean Cities Coalition



U.S. CLEAN CITIES

The U.S. Department of Energy, through the Energy Efficiency and Renewable Energy sector, developed the voluntary program, Clean Cities, to deploy technologies developed through the FreedomCar and Vehicle Technologies (FCVT) Program. Clean Cities' purpose is to advance the economic, environmental and energy security of the United States by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption in the transportation sector.

Clean Cities carries out this mission through a network of more than 80 volunteer coalitions in the United States, which develop public and private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles and idle reduction.

Pima Association of Governments, the metropolitan planning organization for Pima County, manages the Tucson Regional Clean Cities program to expand the use of alternatives to gasoline and diesel fuel, accelerate the use of alternative fuel vehicles and build a local refueling infrastructure for these vehicles. Tucson Clean Cities has nearly 70 members in its coalition who contribute to the goal of establishing a foundation for a viable alternative fuels' market to help reduce dependence on foreign oil and reduce vehicle emissions, the single largest contributor to air pollution in many cities. These alternative fuels include biodiesel, ethanol (E85), compressed natural gas, hybrid electric, fuel cell and hydrogen technologies.



February 2007

Clean Cities 2006 – A year of accomplishments

The use of alternative fuels in Tucson could be categorized as seeing major improvements in 2006. Notable successes include: the University of Arizona opening a new E85, 4,000-gallon tank for university fleet vehicles; the opening of the B100 biodiesel station on Broadway and the City of Tucson's commitment to use B20 in all of its diesel fleet.

Outreach in 2006

The Clean Cities Coalition participated in many outreach events, which received strong media coverage in newspapers and on all major television stations. The Coalition completed a three-month ACCESS TV program for clean alternative fuels and participated in the National Alternative Fuel Vehicle Odyssey Day. We continue to receive requests for updates and presentations to groups all over Tucson, southern Arizona and the United States.

Looking toward the future

Looking ahead, I ask "How can we do more to build on our successes?" The answer is to continue to believe in our mission and continue to emphasize the need for clean fuels for our future and the future of Tucson generations.

I personally wish to thank every Coalition member for your commitment to the Clean Cities program. You have all helped us reach the successes we are celebrating today.

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Colleen Crowninshield
CLEAN CITIES MANAGER
Pima Association of Governments

“ Arizona families need action now. We can't wait any longer to break our dependence on foreign oil. It's a national security risk that ties our nation to dangerous and repressive regimes worldwide.

— We can't wait any longer to decrease our global warming pollution. I am committed to achieving 25% renewable energy consumption by 2025, because change can't wait.

— Rep. Gabrielle Giffords July 27, 2006

Clean Cities Assists on the Border

Arizona Department of Environmental Quality's Ambos Nogales Air Quality Task Force: The Task force is part of the U.S. Environmental Protection Agency's (EPA) Border 2012 Initiative to address health and environmental issues along the U.S.-Mexico border, and it approved a plan to include clean fuel implementation as the No. 3 priority in the area. The situation in Ambos Nogales (meaning "both Nogales") can greatly affect Tucson and Arizona because of the high amount of pollution generated from traffic that enters through the border crossing. By implementing measures to provide cleaner air in Ambos Nogales, Arizonans are ensuring lower pollution for the state. Fleets of trucks cross the border daily and can idle at the crossing for possibly 8 hours at a time. A clean fuel alternative to idling offers better air quality and supplies alternative fuel options for public and private use.



Although the wastewater utility is developing a pretreatment program, it doesn't yet enforce a system to properly dispose of restaurant cooking oils. Many businesses just pour it down the drain. We are trying to alleviate the problem by creating incentives for people to recycle this material for the manufacturing of biodiesel.

used grease down the drain but would be open to a free pick up service which would convert the grease into biodiesel.

Two local fire districts, Rio Rico in Arizona and Bomberos in Sonora, were also interested in the use of biodiesel. In February 2006, the two districts were awarded a \$90,000 grant from the EPA to fund source characterization of waste oils and establish two biodiesel rendering facilities—one on each side of the border. These sites will produce a total of 1,000 gallons of biodiesel over two years to be mixed with petro-diesel at a 20 percent blend for use in the fire districts' emergency response equipment.

Efforts continue in Ambos Nogales with regular taskforce meetings. The task force recently gave an alternative fuel presentation in October to the Mariposa Port Authority on implementing alternatives in the area. The City of Nogales also has agreed to work with ADEQ and Clean Cities to move forward with biodiesel use by the City fleet in its new transit buses to be purchased in late 2007.

Due to its involvement in Ambos Nogales, Tucson Regional Clean Cities received national recognition for its grease-to-biodiesel program. Clean Cities was asked to assist when it was identified that restaurant grease was not being disposed of properly in Ambos Nogales, contributing to sanitary sewer overflows from the wastewater conveyance and impacting the Nogales Wash, which flows north into Arizona. The University of Arizona, the Nogales (Sonora) Technical Institute, Arizona Department of Environmental Quality, and Tucson Regional Clean Cities teamed up to discover that most restaurant owners were pouring

“ ... I announce the Advanced Energy Initiative – a 22 percent increase in clean-energy research – at the Department of Energy. . . We will increase our research in better batteries for hybrid and electric cars, and in pollution-free cars that run on hydrogen. We'll also fund additional research in cutting-edge methods of producing ethanol, not just from corn, but from wood chips and stalks, or switch grass. . . this and other new technologies will help us reach another great goal: to replace more than 75 percent of our oil imports from the Middle East by 2025.

By applying the talent and technology of America, this country can dramatically improve our environment, move beyond a petroleum-based economy, and make our dependence on Middle Eastern oil a thing of the past. ”

– President Bush

State of the Union Mandate, January 31, 2006

TUSD received \$498,000 for dedicated natural gas school buses

Tucson Unified School District, a Clean Cities Coalition member, received a \$498,000 grant and a visit from the U.S. Environmental Protection Agency for its efforts to implement the use of compressed natural gas (CNG) school buses. EPA Administrator Stephen Johnson awarded the grant to TUSD in February 2006 as one of 37 EPA grants totaling \$7.5 million dedicated to the Clean Bus USA initiative.



Administrator Johnson talks to the media about the Clean School Bus USA initiative.

The grant will add to the \$7 million the district had from a voter-approved bond package and budget funds which were set aside specifically for the buses.

Along with environmental benefits, the CNG buses will cost 40 percent less per gallon. Plans for the District to build its own CNG station are being negotiated.

Clean Air Fair 2006

The Clean Air Jam on April 9, 2006, concluded the 2006 annual Clean Air Fair with a bang! The Jam was held at Tucson's Reid Park and included live music, a clean-fueled car & truck show, and booths with a variety of educational information about

the environment. Clean Cities Coalition members participated in the event by providing vehicles, informational and realistic options to petroleum-fueled vehicles. Look for this year's event to be bigger and better than ever on April 1, 2007, at Reid Park.



Colleen Crowninshield, Clean Cities Manager at Pima Association of Governments with her E85-fueled vehicle. Other clean-fueled vehicles were on display at the April 9 event.

Limiting Bus Idling = Clean Air and Savings!

Many school districts in the area began improving air quality in January 2006 by simply limiting bus idling. The program, traversing the state, includes the following local districts:

- Amphitheater Public Schools
- Ajo Unified School District
- Altar Valley School District
- Catalina Foothills School District
- Continental School District
- Indian Oasis-Baboquivari Unified School District
- Marana Unified School District
- Sahuarita Unified School District
- Sunnyside Unified School District
- Tanque Verde Unified School District
- Tucson Unified School District
- Vail Unified School District



A school district with just 50 buses can save \$2,500 a year in fuel cost by limiting idle time to 10 minutes a day.

Limiting bus idling by cutting engines whenever possible is improving the air quality of not only the students but neighborhoods in close proximity to the schools. The program will save money through the number of buses involved and their fuel reduction.

Legislative Breakfast 2006

The 2nd Annual Legislative Breakfast and awards ceremony in Phoenix resulted in 25 companies from the Tucson and southern Arizona areas receiving Clean Air Champion awards. Signed by the Governor, the awards recognized the companies' outstanding achievements in alternative fuel use and promotion. School districts were recognized for their commitment to the voluntary School Bus Idle Reduction campaign as well.

National AFV Odyssey Day at the U of A

The Tucson Regional Clean Cities Coalition hosted the National Alternative Fuel Vehicle (AFV) Odyssey Day event on Oct. 12 at the University of Arizona. With approximately 100 visitors, along with the Western Region Representative for the U.S. Department of Energy, Michael Bednarz, a live remote from the event was broadcast on 92.9 The Mountain with Jennie Gabel. The AFV Odyssey Day was well supported



Southwest Gas representative Joe Varela boasts his CNG knowledge.

by local leadership especially Mayor Robert Walkup who stated that the event would "encourage all of our citizens...to learn about and take advantage of clean, alternative fuel opportunities whenever possible."

National AFV Odyssey Day is coordinated

by the National Alternative Fuels Training Consortium (NAFTC) to create awareness of AFVs and advanced technology vehicles by demonstrating that they are a part of the solution to America's environmental and energy needs and a critical contribution to the nation's future. To find out more about the NAFTC visit naftp.nrcce.wvu.edu.



A representative from Councilmember Nina Trasoff's office talks to onlookers about CNG benefits.

“ Fewer than 1,000 of the nation's 170,000 filling stations currently sell E85, the 85 percent ethanol blend. In fact, I am told that Arizona has only four stations that offer E85 – three of them are in Tucson. I hope that E85 becomes more widely available now that the governor has signed into law a bill that would reverse prior restrictions on the availability of the fuel – as well as biodiesel – in our state. We need to continue exploring options for making ethanol more widely available for consumers so that they can benefit from the advances that we have made and continue to make in the production of the fuel. **”**

– Sen. John McCain

Clean Cities Congress and Expo, May 7, 2006

New Coalition Members:

- GT Motorworks
- Lower Colorado River Resource Conservation
- Trans Global Fuels
- Arizona Biofuels
- AAA of Arizona
- Warranty's 4 Wheels
- Clean Fuels USA

Presentations/Workshops/ Outreach:

- Rio Rico Fire District
- Northern Pima County Chamber of Commerce
- Rio Rico Rotary Club
- Greater Phoenix Rotary Club
- Texas Instruments
- Marana Unified School District
- City of Nogales
- City of Kingman
- Lower Colorado River Resource Conservation Division of the USDA
- Alternative Fuels Town Hall at Tucson Councilmember Carol West's office
- Go Green Town Hall at Tucson Councilmember Nina Trasoff's office
- Alternative fuel training to all mayor and council aides
- AAA of Arizona
- US Foods
- GT Motorworks
- APWA
- City High School
- Nogales Health Fair
- Environmental ethics class at the University of Arizona
- Tucson Lion's Club

Grants Awarded:

ADEQ Vehicle Emissions Grant Opportunities:
ADEQ awarded Tucson Unified and Amphitheater Public Schools grants to offset the cost of both dedicated natural gas school buses and diesel oxidation catalysts to help clean up diesel emissions.

New Biodiesel Station Opens:

Go Go Mart opened at 2200 E. Broadway, 100% Biodiesel

Great Strides in Tucson

92.9 Green Tuesdays: Extraordinary Citizen Award presented by Tucson Councilmember Nina Trasoff on Nov. 7 to Jennie Grabel of radio station 92.9 The Mountain for her efforts with Green Tuesdays, a weekly morning show dedicated to environmental issues.

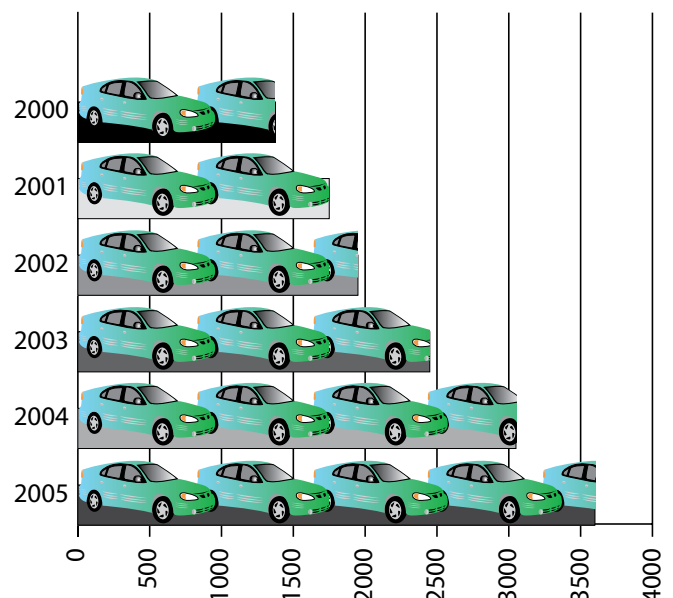
The Mountain also deemed October Alternative Fuels Month and held free concerts weekly throughout the month while offering a drawing for a Toyota Prius.

The University of Arizona opened the first private 4,000-gallon E85 tank for use in its motor pool vehicles.

TUCSON IS A LEADER IN ALTERNATIVE FUELS

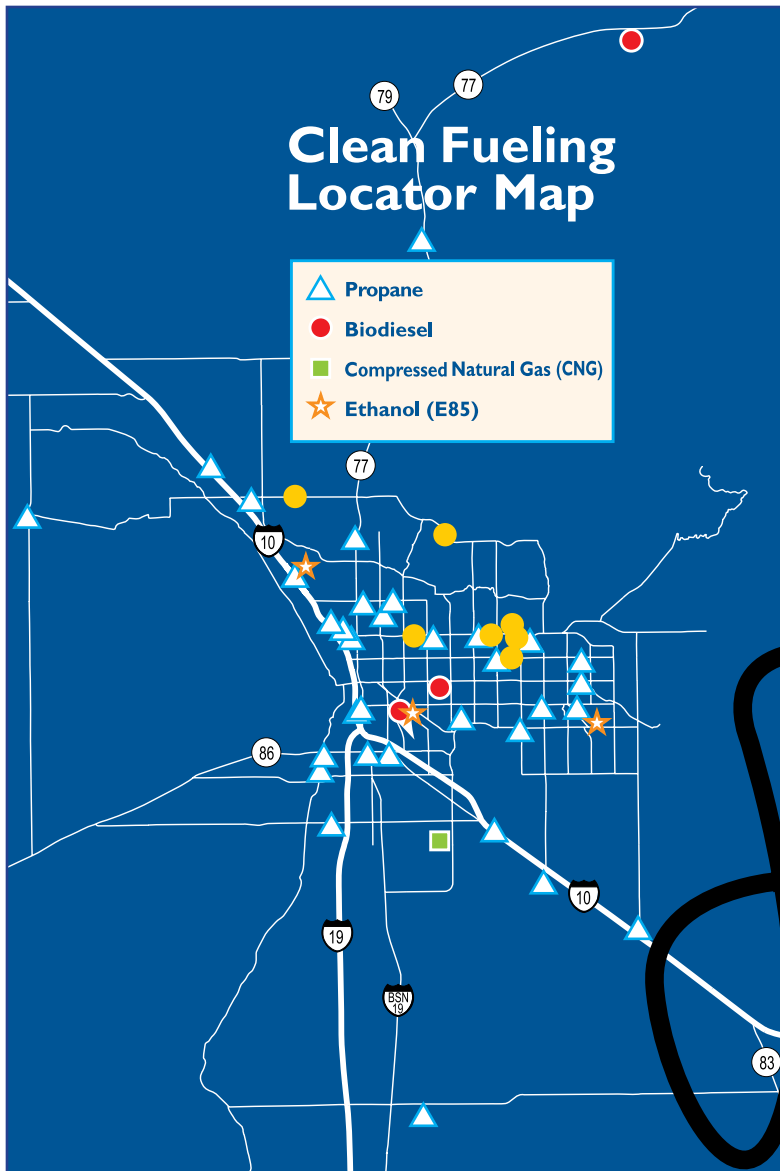
- Biodiesel
- Electricity
- Ethanol
- Flex fuel
- Hybrid
- Hydrogen
- Idle reduction
- CNG
- Propane

Alternative Fuel Vehicles in the Tucson Region



The growing number of alternative-fueled vehicles (both in fleets and operated by individuals) used in the Tucson region is indicated in the chart above.

Clean Fueling Locations • Greater Tucson



Alternative Fueling Stations in Tucson

E85 - Private:	1
CNG - Public:	1
Biodiesel - Public:	3
E85 - Public:	3
Electric - Public:	8
CNG - Private:	10
Propane - Public:	29

- CNG 2202 W. Anklam Road*
- CNG 680 W. Calle Concordia*
- CNG 3034 E. Corona
- CNG 6680 S. Country Club Road*
- CNG 3401 E. Gas Road*
- CNG 1444 W. Grant*
- CNG 8181 E. Irvington Road*
- CNG 4004 S. Park Avenue*
- CNG 4015 S. Phoenix Street*
- CNG 4730 S. Safford Avenue*
- CNG 12775 N. Sanders*

- Electric 3901 W. Costco
- Electric 1930 E. Grant Road
- Electric 5301 E. Grant Road
- Electric 6255 E. Grant Road
- Electric 3733 W. Ina Road
- Electric 6020 E. Speedway Blvd.
- Electric 3800 E. Sunrise Drive

- (E85) 1015 S. Cherry
- (E85) 8601 E. Golf Links
- (E85) 2075 W. Ruthrauff
- Biodiesel 1395 W. American
- Biodiesel 1015 S. Cherry
- Go Go Mart 2200 E. Broadway

- Propane 8291 E. 22nd Street
- Propane 601 W. 22nd Street
- Propane 4055 E. 29th Street
- Propane 1266 E. Benson H'way
- Propane 5451 E. Benson H'way
- Propane 8400 E. Broadway
- Propane 5633 W. Cortaro Farms
- Propane 16231 S. Country Club
- Propane 2803 N. Fairview Ave.
- Propane 930 E. Ft. Lowell Road
- Propane 6301 E. Golf Links Rd.

- Propane 537 W. Grant Road
- Propane 3555 E. Grant Road
- Propane 4702 E. Grant Road
- Propane 10195 S. Houghton Rd.
- Propane 4040 W. Ina Road
- Propane 8701 S. Kolb Road
- Propane 1451 W. Miracle Mile
- Propane 4555 S. Mission Road
- Propane 3761 S. Mission Road
- Propane 4655 N. Oracle
- Propane 5960 N. Oracle Road
- Propane 2 E. Prince Road
- Propane 1285 E. Prince Road
- Propane 6803 N. Sandario Road
- Propane 8530 E. Speedway Blvd
- Propane 5533 E. Speedway Blvd
- Propane 1600 W. Valencia Road
- Propane 2455 W. Wetmore Road

* Private station



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