A Report to
the Joint Standing Committee
on Natural Resources

# Clean Car Education and Incentives – Update

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Environmental Protction

# Clean Car Education and Incentives: An Update

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## Purpose

In 1997 the 118th Session of the Maine Legislature enacted Public Law Chapter 55 which required the Commissioner of the Department of Environmental Protection:

> *to convene a working group of interested parties to recommend a motor vehicle emissions incentives and education program in the State that educates the public concerning motor vehicle emissions, that may provide a rebate for less polluting light -duty passenger cars and trucks and that may require a fee for those vehicles that are more polluting in a manner that is revenue neutral. The working group shall report its recommendations to the Legislature by February 1, 1998.*

In the 1998 legislative session the bill, "an Act to Promote Clean Fuel Alternatives", which required the reporting on alternative fuels to reformulated gasoline with MTBE was amended to also require the continued evaluation of the effectiveness of low emission vehicle alternatives. The Commissioner of the DEP shall provide the interim report to the Natural Resources Committee by January 15, 1998. Accordingly, please find attached the following update to the Clean Car Education and Incentives Report.

## Infrastructure

A recent development in the Clean Fuels efforts was the dedication of the state's first self-serve propane vehicle refueling dispenser. The new dispenser is located at Suburban Propane on Thompson's Point, Portland.

This event marks a significant first step in making cleaner fuels more available to fleet operators and individual users alike. Up until now, propane had to be dispensed by a licensed operator, and then only during business hours. This pump will allow operators who have received the short training required for certification to have 24-hour access and have the ability to pay with a credit card. This makes refueling with propane just as easy and accessible as refueling with gasoline has become.

# The Natural Gas Vehicle (NGV) Message

**Environmental and Health Benefits.** Regardless of improvements in emissions technology, conventionally fueled motor vehicles will continue to contribute to air pollution because the number of vehicles in use and the vehicle-miles traveled will continue to grow.

Due to the favorable properties of natural gas as an engine fuel, NGVs produce lower levels of all pollutant emissions than either conventionally or reformulated gasoline and diesel fuel. **Compared with gasoline-powered vehicles, dedicated NGVs can reduce exhaust emissions of CO by approximately 70 percent, non-methane organic gas (NMOG) by 89 percent and NOx by 87 percent.** Dedicated NGVs also can reduce carbon dioxide ($CO_2$) -- the principle "greenhouse" gas -- exhaust emissions by 20 - 30 percent.

NGVs are the first vehicles certified to meet California's low-emission vehicle standards. They are the only vehicles to officially meet California's strict ultra-low and super ultra-low emission standards. Even with reformulated gasoline, the evaporative, running loss, and refueling hydrocarbon emissions still exist, and in new vehicles, these so called "off-cycle" emissions are as significant as the exhaust hydrocarbon emissions. NGVs produce only a tiny fraction of these types of emissions. In addition, NGVs emit virtually no particulate matter, which has been known to harm the human respiratory and cardiovascular systems and cause "haze," or visibility impairment.

**National Security.** For several years now, the United States has imported more than 50 percent of the oil it uses (approximately 55 percent in 1997). Future projections by the Energy Information Administration (EIA) predict that oil imports will continue to increase as domestic consumption continues to outpace U.S. production. Consequently, U.S. imports of foreign oil are expected to account for 60 percent and 72 percent of the oil consumed by 2000 and 2010, respectively. Two-thirds of the oil we use goes for transportation. The U.S. DOE has recently stated that there is a one for one correlation between increased demand for transportation fuels and oil imports. Much of the increase in oil imports will come from OPEC members and Persian Gulf countries. On the other hand, 87 percent of all natural gas that is consumed in the United States is domestically produced, and most of the remainder is produced in Canada. EIA predicts that domestic natural gas production will continue to increase well into the next decade. In fact, despite significant growth in natural gas consumption, domestic production is forecasted to make up at least 85 percent of the demand for the seeable future. Using North American natural gas instead of oil or other fuels imported from overseas improves energy security and the U.S. balance of trade.

**Jobs and Economic Opportunities.** The NGV industry is focused on expanding the market for NGVs in fleets with high fuel usage. Many states view the emerging NGV industry as an economic development opportunity. These states support combining the use of incentives and the implementation of EPAct fleet regulations to make the alternative fuel vehicle industry sustainable.

The Department of Energy Clean Cities program is currently operating in 66 areas across the United States. There are more than 1,200 stakeholders who have signed agreements to increase the use of alternative fuel vehicles in their localities. Natural gas is the only alternative fuel that has a presence in all Clean Cities locations except Hawaii.

According to the NDCF report, a substantial investment will be required to meet the projected demand for natural gas vehicles and fueling stations created by government requirements and environmental concerns.

According to the NDCF report, a direct investment in NGV fabrication, fueling station and infrastructure construction, and vehicle and station maintenance will result in the creation of 13,500 jobs during the first phase of the market's development (1996-2000). Indirect investment will stimulate the creation of another 30,000 jobs for a total of 43,500 jobs by 2000.

Over the first five-year period, natural gas producers will pay approximately $16.8 million in state severance taxes on gas produced for the NGV market. In addition, $30 million in royalties will be generated, with at least $9 million flowing into the federal treasury.

**Export Potential.** Concerns about air pollution and energy security are moving the market towards NGVs worldwide. Currently, NGV conversion and other projects are underway in Mexico, Venezuela, Australia, China, South Korea and throughout Europe. The World Bank estimates that by the year 2000, more than $2 billion per year will be spent in Asia alone on clean technologies. The demand for environmental services and clean technologies is expected to continue to increase worldwide, reaching levels exceeding $400 billion.

The U.S. is the world leader in alternative fuel vehicle technology, including natural gas vehicles. In fact, U.S. technology is so good that one leading car manufacturer intends to export its U.S. made NGVs to Japan. The potential for U.S. companies is limited only by their ability to manufacture and grow. However, this ability is linked to success in the largest vehicle market in the world, the U.S.

## Other Facts About NGVs

- NGVs are here now, an indication that the industry has moved beyond the developmental stage into commercialization and expanded applications.

- Public access to NGV fueling stations is increasing daily. Of the more than 1,300 fueling stations, half are available to the public.

- NGV fueling systems are safe. The NGV industry standards have been adopted by various federal agencies, and are continually upgraded to make natural gas the safest vehicular fuel.

- There are nearly 75,000 NGVs on the road in the United States today and more than 1 million worldwide.

- NGVs are ideal for fleet operations. The industry is concentrating on high fuel-use commercial fleets such as public transit buses, refuse haulers, airport shuttles, taxis, and over-the road trucks.

## Propane fuelled vehicles

Propane is the most widely used alternative fuel in the world. Millions of vehicles around the world use clean burning propane as their fuel source. Vehicles that use propane have improved engine life and reduced maintenance costs - they also burn cleaner thus reducing levels of harmful emissions. Auto and truck manufacturers are currently producing propane powered vehicles at a number of their production sites. In addition, propane powered vehicles travel much farther than most other alternative fuels - a 100 litre tank of propane will take you almost four times as far as a vehicle powered with CNG (compressed natural gas).

# Clean Car Technology Update

Clean car technology has three basic divisions: traditional gasoline powered vehicles, electric vehicles and other alternative fuel vehicles. While all three categories are important, they are developing at different rates, generally focussed on different markets, and have different potential for both the short and long term. Given rapid changes in the industry, ten years is a very long term for the sake of this discussion; five years is a more realistic time period within which to predict likely developments.

The gasoline powered vehicle category is currently the largest segment of the clean car industry and will be for the next five to ten years. Major automobile manufacturers from the U.S., Asia, and Europe are all producing vehicles which meet California's Low Emission Vehicle standard and some are managing to meet California's Ultra Low Emission Vehicle standard with certain models. Currently, these vehicles are being widely sold in California, many models are also being sold in the Northeast, and a few, such as Honda Accord LEV, are being sold nationwide. The California Air Resources Board maintains a list of vehicles available in California by manufacturer for each model year.

The electric vehicle category has received the most attention in the past few years. Despite Zero Emission Vehicle (ZEV) mandates in several states, the electric vehicle category will remain the smallest segment of the overall car market for the next five years. Under the California LEV program manufacturers are required to offer 10 percent of their new car fleets as ZEVs for model year 2003. California intends to evaluate the 2003 ZEV mandate by completing a ZEV feasibility study during year 2000. In advance of the California ZEV mandate manufacturers have introduced ZEVs in California and other areas of the U.S. The following is a brief summary of what these manufacturers are currently selling and their plans for the near future:

- In 1998 Ford introduced the Ranger electric pickup in 1998 and is selling the vehicle through selected dealerships nationwide. Their primary focus is fleet operators which is likely to be the consumer target for the next two to three years. Anyone can order the Ranger for roughly $35,000 through one of the selected dealerships (there is one in Maine).

- Honda introduced an electric compact sedan in California for the general consumer market. The vehicle can only be leased for approximately $450 per month, and Honda is currently considering offering the vehicle to select electric utilities in areas outside of California. This vehicle is not expected to be available in Maine for at least two years or longer.

- Toyota in 1998 introduced the RAV4 Electric in California and the Northeast. The vehicle is only available to fleet customers and is not being sold through local dealerships. The lease price is $17,532 for three years or $42,000 to purchase.

Toyota set a goal of three years of fleet customer experience for this vehicle before offering it to the general public. At this time Toyota is not targeting Maine fleet customers for this vehicle, but they have indicated that if a serious buyer expresses interest that it may be possible to buy or lease one. Toyota is also developing a hybrid electric and fuel cell electric version of the RAV4, but these vehicles are in the testing phase. If the pure electric RAV4 is any indication, Toyota will not make these versions available to the public for three to five years.

- In 2000 Toyota also will introduce to the U.S. the Prius, a hybrid electric (combination of batteries and gas engine) that gets about 65 miles per gallon. The Prius will sell for about $17,000 and is a comfortable 5 passenger sedan.

The other major car manufacturers are expected to have hybrid versions on the market shortly thereafter. Most manufacturers will have a gasoline hybrid that can be used anywhere gasoline filling stations are available. For northern New England this will open up the entire area for the advanced energy and pollution saving hybrid technology and also overcome the vehicle heating problem associated with purely electric vehicles.

- General Motors introduced the EV1 on a limited basis in California and Arizona to select general consumers for a three year lease price of about $30,000. In 1999 they have plans to expand the market for this vehicle to other "EV Ready Communities" throughout the U.S. but Maine is unlikely to be a target for this vehicle any sooner than 2001. GM also has introduced the S10 Electric pickup nationwide to select utility customers. Because of its limited range (50 miles), this vehicle, like the Ford Ranger, will be of interest to a limited number of customers. The vehicle leases for about $30,000 for three years.

- Chrysler introduced to selected fleet customers in California an electric version of its popular minivan called the EPIC. They appear to have no plans to market this vehicle beyond the next two years. The EPIC leases for about $35,000 for three years.

- Nissan recently introduced an electric station wagon called the ALTRA EV to select fleet customers in California for an undisclosed lease price. The vehicle has a range of about 120 miles.

- Solectria, a manufacturer in Wilmington, Massachusetts, does EV conversions of existing models. Nearly 350 Solectria EVs – cars, pickups, delivery vans, and the record breaking all composite Sunrise sedan – are now on the road.

Attached is an informational packet published by Breakthrough Technologies Institute. This package, entitled *Your Next Car*, includes *Electric Vehicles and Hybrid Vehicles*

*ON THE MARKET Today and in the Near Future* (reprinted from the 1998 NESEA American Tour de Sol program) and *Nucleus, Where is Detroit Heading* (reprinted from The Magazine of the Union of Concerned Scientists).

The category of other alternative fuel vehicles includes natural gas, propane, methanol and ethanol. Manufacturers are increasingly focussed on this segment of the market but primarily for fleet customers. Even though sales of these models are not generally restricted, as in the case of EVs, they effectively are confined by what fuels are available and where. Alternative fuel vehicles offered by Ford, GM, Honda, Chysler, and several commercial vehicle manufacturers generally meet the Cal LEV and ULEV standard, but fuel availability will continue to limit their attractiveness to the general consumer for the next three to five years. These vehicles will likely make up a greater segment of the new car market than EVs for the foreseeable future and as fuel is more widely available their market share could expand significantly. In Maine, many manufacturers are offering a variety of alternative fuel vehicles for special order but fuel availability and price are major deterrents to their use.

Attached is a summary of *Model Year 1999 Vehicle Offerings* reprinted from the U.S. Department of Energy's *ALTERNATIVE FUEL NEWS*, an official publication of the Clean Cities Network and the Alternative Fuels Data Center, dated December 1998.

# Public Education

## "Green Car" Labeling

This past summer, staff of the Natural Resources Council of Maine (Council) and Maine's Department of Environmental Protection (DEP) visited car dealer lots in Maine to learn about how new cars are labeled and presented to potential customers. We were particularly interested in learning how emissions packages or certifications of new cars are labeled and presented to potential buyers. Even with a pretty good sense of what we were looking for, we found it difficult and cumbersome to figure out whether a car had a clean emissions package. Further, when we found a clean car, it was particularly difficult to determine how clean was its emissions package.

With this in mind, we set out to develop a program that that would make it easy for buyers to identify a clean car in Maine. The program would have the additional benefit of promoting the purchase of cleaner cars in Maine, such that once a potential buyer found a clean car, that buyer would consider buying it. The program would use a sticker identification method. The three groups interested in selling cleaner cars: the Council, the DEP, and the Maine Auto Dealers Association, would work together to identify cleaner cars with an emblematic sticker, thereby distinguishing that particular car as "clean" or "cleaner".

### What is Cal LEV?

The emissions packages of new cars and trucks are certified by the U.S. Environmental Protection Agency based on the amount of emissions of non-methane organic gas, NOx, and CO. Depending on the emission levels, each car model (and where a model has different engine compositions and fuel sources, then each of these versions as well) is certified to a standard. Currently, there are six standards of which five are California clean car standards (otherwise known as "Cal LEV" standards) and the sixth is a federal standard (otherwise known as the "Tier I" standard). Each of the five California standards is cleaner than the Tier I standard.

"Cal LEV" is the acronym for the "California Low Emission Vehicle program". This program was developed and enacted in California. California which has the worst air pollution in the country began vehicle certifications prior to the federal certification program. Below are listed the five Cal LEV standards and their relative cleanliness compared to the federal Tier I standard.

| Cal LEV emission standards: | | Amount cleaner than Tier I emission standard: |
|---|---|---|
| TLEV | Transitional Low Emission Vehicle | 2 times cleaner |
| LEV | Low Emission Vehicle | 3.33 times cleaner |
| ULEV | Ultra Low Emission Vehicle | 6.25 times cleaner |
| SULEV | Super Low Emission Vehicle | > 6.25 times, prohibits fuel vapor emissions |
| ZEV | Zero Low Emission Vehicle | 100% cleaner, emits no tailpipe |

The above figures were derived from certification standards measuring emissions of non-methane organic gas (NMOG) in grams per mile. For CO emissions, ULEV is twice as clean as Tier I, LEV, and TLEV. For NOx emissions, LEV and ULEV are both twice as clean as Tier I and TLEV. ZEVs are 100% cleaner with no tailpipe emissions. Sources: The Maine DEP, and the *Green Guide to Cars and Trucks*, DeCicco and Thomas, 1998, published by the American Council for an Energy-Efficient Economy.

The Clean Air Act allows states to adopt the Cal LEV program into their own regulatory programs. In December 1997, the State of Maine implemented the Cal LEV program as its clean car program. This means that starting in less than two years with model year 2001 vehicles, all new cars and trucks sold in Maine must be certified to one of the California standards - TLEV, LEV, ULEV, SULEV, or ZEV. In simpler terms, it means that Maine car dealers will receive the cleanest cars available on the same time schedule as the dealers in the state leading the nation on clean air policy.

Maine is one of the four states in the Northeast to adopt the Cal LEV program, which has been in place in California for a number of years. At this time, New York and Massachusetts, having adopted the program in the early and mid-1990s, have forged ahead with implementing the program with great success. A regulator in Massachusetts recently stated that "The Cal LEV program in Massachusetts is essentially transparent," meaning that full market transformation to Cal LEV standards has been achieved. Next door in Vermont, the state is now starting to implement Cal LEV after its recent adoption. Although New Hampshire did not adopt the Cal LEV standards, it receives all of the clean air benefits of the program because of market penetration of Cal LEV cars and trucks from Boston and other Massachusetts dealers. For all practical purposes, the Cal LEV program is having its intended impact on the market in New Hampshire, even though not formally adopted there. Thus, Cal LEV is firmly established throughout the car market in the Northeast.

## "Clean Cars for Maine" Program

The "Clean Cars for Maine" program will help consumers identify cleaner cars on car and truck dealers' lots, to create market acceptance for cleaner vehicles, and to allow the dealers to compete in the newly created cleaner car market niche. The market must be jumpstarted in order to make this program transparent as soon as possible, much like the California and Massachusetts markets.

Working together, the DEP, the Council, and the Maine Auto Dealers Association can get the program established and well-recognized by Maine's consumers. Towards this goal, the DEP will work on an advertising campaign to promote the "Clean Cars for Maine" program. In turn, the Council is working to publicize the current availability of cleaner cars in Maine and to broaden their recognition by consumers through brochures, fact sheets, presentations, and educational seminars. The key element remaining is working together with the Maine Auto Dealers Association.

More background information may be useful to most fully develop this sticker program with the Maine Auto Dealers Association. Likewise, informing individual car dealerships and sales personnel is essential.

The following explains the proposed "Clean Cars for Maine" program in more detail.

### Who will implement this program?

With the Maine Auto Dealers Association's participation, the DEP and the Council offer to sponsor and organize the marketing of the sticker program. We propose that the DEP, the Council, and the Maine Auto Dealers Association each will serve as a co-sponsor to implement the sticker part of this program. The costs of the static stickers would be borne equally by all co-sponsors, and would cost approximately $500 per co-sponsor per year (until the program is no longer necessary in approximately 3 years).

### Why should we place clean car stickers on vehicles?

Approximately 25%-100% of cars on dealer lots are new cars. The purpose of Cal LEV is to offer cleaner operating cars with less emissions. Given that we cannot readily address variables that contribute to air pollution in Maine which are outside of our control, such as vehicle miles traveled, we must focus on those areas where we can have an impact, such as existing technology. Implementation of the Cal LEV program requires that all cars and trucks that are model year 2001 or later in Maine must be "Cal LEV", or certified to one of the Cal LEV standards. During the time we transition to model year 2001 vehicles, consumers and dealers will need and want to be able to identify and differentiate Cal LEV cars from federal Tier I certified cars.

Clean car stickers will help dealers and consumers more readily identify these cars. The sticker could be attached in a highly visible location on the car such as its placement on the side window (next to or on the sales label describing the car's components and price). Also, the sticker should be a "static sticker", which attaches by static electricity, and not by an adhesive. A prototype sticker of this type currently in use is the oil change sticker that mechanics often place on vehicle windshields throughout the state to remind owners of their next oil change. Consumers could permanently leave the sticker on the car, thereby showing their continued support for the "Clean Cars for Maine" program. The Department, Council, and the Auto Dealers Association would jointly decide the final choice of a sticker.

**What do the dealers need to do?**

The dealer's role in implementing this program is to stick the static sticker on each vehicle that qualifies as a "cleaner car". Working together, the groups can decide on what would qualify as a cleaner car

**Which vehicles qualify for a "Clean Car for Maine" sticker?**

One proposal would be to compile a list of Cleaner Cars for Model Year 1998, using the *Green Guide to Cars and Trucks* as published by the American Council for an Energy-Efficient Economy. This has been a tremendous resource in its first year of publication, and will be published annually. The model year 1999 publication is due out in February 1999. The guide ranks vehicles according to their environmental friendliness, which includes fuel economy and emissions certification. One proposal is that any vehicle which receives an "above average" or "superior" environmental ranking, and which also has an emissions certification of LEV or better, would qualify for a "Clean Car for Maine" sticker. The down side of this method is that the Green Guide is not published until about February of the year following the model year release and for example, model year 1999 vehicles have been on the lots as early as summer 1998.

Another method would be to simply put Green Stickers on any vehicle with LEV certification or better and has a specified mileage rating, for example of 30 miles per gallon or better (city or highway).

**How much more do Cal LEV cars cost than traditional vehicles?**

On average, at the retail level, gasoline-powered cleaner cars and trucks cost between $50-200 more than Tier I cars and trucks. Electric vehicles, at this time, are more costly than other Cal LEV or Tier I vehicles. However, the good news is that cleaner cars, including electric vehicles, are eligible for tax incentives at both the state and federal level.

**The Status in Other Markets**

Several states in the nation also are in the process of developing stickers or labels that include environmental impacts to increase consumer awareness of cleaner vehicles on dealers' lots. Development of the label is being coordinated through STAPPA/ ALAPCO (which advises state and local air administrators) and ECOS (which advises state environmental agency directors). In New Jersey, for example, state representatives are working closely with that state's auto dealers association in designing a program and obtaining dealer buy in. In conjunction with environmental and consumer groups, other in-state government agencies and trade associations, the state environmental agency in Washington, has made considerable progress in developing a comprehensive labeling program.

Among the other efforts, we think that the "Clean Cars for Maine" program has a much simpler message and will be more successful in implementing the purposes of the Cal LEV program.

Furthermore, to strengthen and support the implementation of Cal LEV, the DEP is in the process of developing a Memorandum of Understanding (MOU) with the state environmental agencies of New York, Massachusetts and Vermont. This will facilitate regional implementation of each of the Cal LEV programs. In the MOU, consideration will be given to labeling that is consistent within the four-state region. The "Clean Cars for Maine" program could serve as the model for the entire Northeast.

Several national organizations have formed an informal network with the goal to promote market acceptance of cleaner vehicles. The network is working toward this by cooperatively developing vehicle standards (excluding emission standards) and specifications. The organizations include: EPA's Offices of Mobile Sources and Air and Radiation, the Department of Energy's Office of Technology (Clean Cities Program and Alternative Fuels Program), the American Council for an Energy-Efficient Economy, the International Council for Local Environmental Initiatives, the Cities for Climate Protection Campaign, Green Seal, the Consumer Coordination of America, the Highway Transportation Safety Commission and numerous other non-governmental organizations.

In addition, the Ozone Transport Commission submitted a "Green Car Labeling of National Low Emission (NLEV) and Cleaner Vehicles in the Northeast" to EPA under the Mobile Source Outreach Assistance Competition for fiscal year 1999.

Under this proposal the Ozone Transport Commission would develop a regional "green car" labeling program for use in future years throughout the Ozone Transport Region and as a model for introduction of cleaner vehicles in the other 36 states when the NLEV program commences in 2001. Under this proposal, the **State of Maine** will be a national model for successful implementation of a sticker program, and the other OTC States will disseminate public education and outreach materials that describe the health, air quality and public welfare benefits of making an educated decision regarding vehicle purchases.

# General Public Outreach

The following is a summary of Department of Environmental Protection's public education efforts related to mobile sources and transportation activities but not limited to clean fuels and clean fuel vehicles:

## Past Efforts

- **Television public service announcements** (aired 1996 and 1997): conveyed message that a significant portion of Maine's air pollution comes from cars, and that this pollution can impact human health.
    1) TV PSA featuring children's drawings, "Is Maine having a bad air day?"

    2) TV PSA featuring 1920's film footage*

    3) TV PSA featuring cartoon drawings by Hank Aho*

    4) TV PSA featuring people wearing air masks & smoggy Portland

*Air Bureau got a CMAQ grant to develop and air these spots, and utilized a 4:1 air time match through the Maine Association of Broadcasters to maximize air time.

- **Radio public service announcements** (aired 1996 and 1997):

    1) Earth Day 1996 PSAs - Air Bureau staff wrote and recorded four air-related PSAs that were aired during Earth Week by several major radio stations in Maine. Messages were that cars contribute significantly to Maine's air pollution, and the public can take steps to minimize this pollution.

    2) Spring/Summer PSAs, 1997 - Air Bureau staff wrote and recorded two PSAs, one promoting carpooling, and one on "the sounds of air pollution" to inform people that cars pollute. Both focus on individual responsibility.

- **Earth Day newspaper** (insert, 1998): The Department put together an eight-page environmental newspaper insert, which was included in major Sunday newspapers around the state on the Sunday before Earth Day, 1998. The insert included two pages of easy-to-understand articles, a quiz, graphics etc. to inform the public about mobile source pollution and how they can reduce air pollution.

- **Brochures** (1998):

  1) The Impact of Transportation of Maine Air Quality – selected facts and statistics on mobile source pollution in general and in Maine, including projected trends – compiled for and distributed to the Maine State Legislature.

  2) Drive Green, Save Money

  3) Driver's Guide to the Environmental Components of Maine's Safety Inspection Program

## Ongoing and Future Efforts

- **"Screen Seens":** Air Bureau is currently utilizing a one-year EPA grant to develop and show cinema advertisements in seven Hoyt's theaters throughout Maine. Messages all pertain to air pollution from mobile sources. These Screen Seens began running in summer 1998, and can be seen through summer 1999.

- **Click and Clack:** Bureau staff persuaded Click and Clack, hosts of National Public Radio's "Car Talk," to record some public service announcements conveying the message that cars cause air pollution, and that personal responsibility is an important factor in reducing mobile source pollution. Staff wrote three PSA's and sent them to Click and Clack who should be recording them in November 1998. Several major radio stations in Maine have already agreed to run the spots, which will also be distributed to stations nationally.

- **EMPACT project:** Air Bureau has an EPA grant to employ new light-based technology for monitoring air in Portland (across a section of I 295) and provide real-time air quality data to the Maine public. Data will show direct impacts of mobile source pollution, and accompanying public outreach will stress mobile source contributions and health effects.

- **Newspaper column:** The Department is currently "marketing" a weekly environmental newspaper column to newspapers throughout the state. Approximately once per month topics will focus on air pollution issues.

- **Ozone Mapping:** Maine Air Bureau staff have been leading the effort to promote the television ozone map to be broadcast as part of daily television news weather reports. The map will show the creation and movement of ground-level ozone superimposed on local weather maps during the warmer months when ozone

is a problem. Weather broadcasters will be asked to include information on how ozone is generated (emphasizing mobile source pollution) and what the public can do.

- **Regional efforts:** Maine DEP holds the chair of the Ozone Transport Commission's Communication Committee, charged with regionwide public education on ground-level ozone. The Committee is promoting interstate sharing of educational products, and will focus on messages pertaining to mobile source pollution, health impacts of ozone, and the regional nature of the ozone problem.

- **School-based programs:** Air Bureau staff have (these are continuing efforts):

  1) Developed and distributed the Clean Air Game and the Global Energy Game to teachers throughout the state, and have visited schools to play the educational board games with elementary school classes. The games teach about sources and consequences of air pollution.

  2) Held Sustainability Workshops for teachers to help them develop curricula to teach about environmental sustainability, of which transportation choices are a big part.

  3) Worked with the Maine Energy Education Project to hold teacher/student energy workshops. Teachers and students then incorporate what they've learned into curricula (including mobile source energy use and pollution).

  4) Implemented school education projects on global climate change.

  5) Hosted "Energy Jeopardy" at the Department's annual Water Festival, which includes categories on transportation and air quality.

- **Ozone Awareness Day/media packet:** As they did last year, Air Bureau staff plan to hold a media event at the beginning of the ozone season in spring 1999 (and hopefully in subsequent years). Bureau staff are coordinating the event with other OTC states, and will be developing a media packet to educate the media on air pollution issues (emphasizing mobile sources) for the event. (One staff person even enlisted the help of Hillary Clinton, who last year mentioned in a nationally televised speech that it was Ozone Awareness Day, and that ozone has serious consequences for human health.)

- **Community Access Stations:** Air Bureau staff are planning to work with other Bureaus to compile already-made video pieces, dupe them, and send them out to Maine's community access cable TV stations, for them to air. (Air pieces emphasize mobile source pollution.)

- **Urban Sprawl:**

  1) Air and other Bureaus are supporting a Maine Development Foundation application for an EPA grant to educate leaders in 20 Maine communities on urban sprawl and its negative environmental impacts, including air pollution. End product will be a plan in each community to locally address, and possibly minimize, sprawl.

  2) Air Bureau and Land and Water Bureau staff are participating in the College of the Atlantic / State Planning Office community forums addressing urban sprawl (closely related to transportation choices). Future outreach efforts will likely incorporate issues of urban sprawl.

- **Commute Another Way Day:** The Department takes part in the state's annual Commute Another Way Day, to encourage more environmentally sound commuting and raise awareness about the environmental and social costs of automobile use.

## Ongoing Clean Cities Efforts

The Greater Portland Clean Cities sponsors periodic **Fleet Breakfasts** for public, private, and municipal fleet managers. At the breakfast, managers find out what is happening with Alternative Fuels in the Greater Portland region and connect with representatives from the fuel industry, vehicle manufacturers, and others who have the latest news on the latest technology, market updates and more.

# Incentives

## State of Maine Incentives

The State of Maine has recently enacted legislation that provides incentives for purchases and operation of Clean Fuel Vehicles. Businesses, municipalities and individuals can save money when adding clean alternative fuel vehicles to their fleet.

**Exemption from the sale or lease tax on the incremental cost of a clean fuel vehicle.** Clean fuel vehicles sold by Original Equipment Manufacturers have an added cost to the consumer, sometimes called the incremental cost, over and above that of identical gasoline-powered vehicles. Starting on January 1, 1999 and extending until January 1, 2006, the incremental cost of clean fuel vehicles will not be subject to sale or lease tax. When there is no identical vehicle powered by gasoline, 30% of the price of internal combustion engine vehicles, and 50% of electric and fuel cell vehicles will qualify for the exemption.

**Tax credit on the cost of developing clean fuel infrastructure.** Anyone who installs, constructs or makes improvements to any filling or charging station for the purposes of providing clean fuels to the general public for use in motor vehicles is allowed a partial tax credit. The credit may not reduce the tax below zero and may not exceed the income tax liability on the sale of the clean fuel. However, unused portions of the credit may be carried over to subsequent years until exhausted. The qualifying percentage of expenditures is 50% from January 1, 1999 to December 31, 2001, and 25% from January 1, 2002 to December 31, 2006.

**Clean Fuel Vehicle Loan and Loan Guarantee Program through the Finance Authority of Maine (FAME).** This program, to be funded by grants, air pollution penalties and other sources of private and public funds, assists vehicle fleet operators and Maine businesses in acquiring, leasing or converting clean fuel vehicles. This program also establish maintenance and support facilities for these vehicles by providing loans through a revolving fund as well as loan guarantees. FAME is authorized to offer lower interest rates to municipalities for the purchase, lease or conversion of clean fuel municipal fleet vehicles.

**Insurance Incentives.** Insurers are allowed, but not required, to offer incentive rates to encourage policyholders to use clean fuel vehicles. Ask your agent.

## Federal Incentives

**Federal Electric Vehicle Tax Credit.** Tax credit is provided for purchase of qualified electric and hybrid electric vehicles. The credit is 10% of the vehicles cost, up to a maximum of $4,000. After the year 2000, the credit will be reduced by 25% each year until phased out.

**Federal Clean Fuel Vehicle and Refueling Station Tax Deduction.** A tax deduction is available for businesses or people who purchase clean fuel vehicles (other than electric) and certain refueling property. The deductions are based on gross vehicle weight and type of vehicle according to the following:

| | |
|---|---|
| Truck or van (10,00 – 26,000 lbs.) | $ 5,000 |
| Buses (seating capacity of 20+ adults) | $50,000 |
| Truck or van (greater than 26,000 lbs.) | $50,000 |
| All other vehicles | $ 2,000 |

The deduction must be taken in the year the vehicle is acquired. A tax deduction of up to $100,000 per location for clean fuel refueling or recharging property for electric vehicles is also available. The equipment must be used in a trade or business. After the year 2001, the tax reduction will be reduced 25% each year until phased out.

## Proposed Incentives

Two bills to create incentives for Clean Fuels were introduced this legislative session:

- **LD 745, An Act to Amend the Licensing Provisions Under the Propane and Natural Gas Act** would seek to remove the training requirement for individual users of state-of-the-art service propane or natural gas dispensers. This new equipment is as safe or safer than the self-service gasoline dispensers found at filling stations everywhere.

- **LD 1337, An Act Regarding Taxation of Clean Vehicle Fuels** would amend the Special Fuel Tax Act to account for the difference in energy content of Clean Fuels compared to gasoline and diesel. The highway tax will be based upon the "gasoline gallon equivalent", making the tax per mile equal to that of gasoline. In the near term this Act would also seek to reduce the amount of tax on Clean Fuels to ½ of the amount applicable to a gallon of distillate fuel, until 2006.