



ENVIRONMENTAL HEALTH
Promoting Healthy Communities

Engines **OFF!**

D E N V E R

**Idling Reduction Social Marketing
Pilot Program**

**Program Results and
Summary Implications**

December 8, 2008

GBSM

INSIGHT | STRATEGY | RESULTS

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Program Summary

Program Goals

The goal of the Engines OFF! pilot program was to evaluate if a social marketing approach could work to reduce idling of commercial vehicles at large public venues. The impetus for the program was the complaints the Colorado Convention Center (CCC) had received about idling fumes from Emily Griffith Opportunity School, located across the street from the CCC. The pilot was conducted with the Colorado Convention Center (CCC) with the intentions of applying lessons learned at this venue to others city-wide if the program was successful.

Program Dates

- Research: March – April 2008
- Program Implementation: July 2008 – current
- Follow Up Research: October – November 2008

Initial Research

The Engines OFF! program started with observation research to determine the level of idling at the CCC during large conventions. Similar observations would be conducted after the program's implementation to determine if the program had caused the levels to decrease. The original observations showed that indeed trucks and commercial vehicles were idling beyond the current 10 minute idling ordinance. With 81% found idling and 50% of these were idling beyond 30 minutes. The observations were conducted in the spring when the temperatures were mild.

The research also included interviews with trucking companies, vendors, coach companies and DMCs to uncover barriers to idling reduction. The main barriers included:

- Lack of knowledge of the idling ordinance
- Forgetting to turn off the engine
- Lack of enforcement.

Interviews were also conducted directly with drivers, who said the most persuasive messages about idling would address the negative effects to their health, consideration of their neighbors, and policy of their companies. Passenger comfort was also a major barrier that was expressed by coach, limo and taxi companies.

Social Marketing Program

A social marketing program was designed to overcome the barriers and encourage drivers not to idle at the CCC. The program's main components included:

- 1) **Signage:** New, more visible signage was created by the CCC with messages about health and being a good neighbor, complimenting the idling rules.
- 2) **Security Guard Training:** CCC Security guards received training about talking to drivers about idling and how to write warning tickets for ordinance violators.
- 3) **Written Program Introduction:** The CCC Sustainability Coordinator also sent a letter to all vendors and transportation companies introducing the Engines OFF! program
- 4) **Pledge:** A pledge was sent with the introduction letter encouraging companies to sign as a commitment to idling reduction, vowing to make anti-idling behavior part of company policy and protocol. As incentive to sign the pledge, companies would receive recognition on the CCC and City Websites, receive Engines OFF! stickers for

- drivers and potentially receive a Mayoral Commendation if they showed an ongoing commitment.
- 5) **Idling Education:** Matthew Marshall from the City conducted proactive outreach to a variety of transportation companies to educate management and drivers about idling.
 - 6) **Vehicle Magnets & Clocks:** Dashboard clocks, purchased by the CCC, were distributed to coach companies to remind drivers not to idle more than five minutes. Matthew distributed Engines OFF! magnets to companies so drivers could display their commitment to idling reduction and also to alert passengers that they are complying with a city program by not idling.
 - 7) **Idling Sounding Board:** Volunteers were solicited at the Transportation Forum to become leaders and give input into the program. Members were contacted prior to program launch for insights and input.

Follow up communication would be conducted with the CCC vendors and transportation companies, thanking them for their efforts, updating them on the results, and asking for continued participation. Mayoral Commendations would be distributed at a Transportation Forum to companies who showed committed action to the Engines OFF! program.

Follow Up Research

Follow up observations were conducted in the fall, four months after the program launched, to determine if the program had effects on idling behavior at the CCC. Interviews were conducted with managers at the CCC and Matthew Marshall to gauge CCC participation and driver buy-in to the program.

Program Results Summary

Idling was reduced from 81% to 45%

- Most common vehicle to still be found idling was charter buses.

Vehicles idling more than 10 minutes reduced from 50% to 19%

- Charter buses continue to be biggest offender, but also biggest reduction from 17 observed idling more than 10 minutes to 3.
- Semi trucks also had a large decline from 9 observed idling more than 10 minutes to 1.

Buy-in from Colorado Convention Center was significant and will be ongoing

- Sustainability Coordinator, Security Manager and Director of the CCC were fully cooperative in executing the program. (see program summary for details)
- 18 new signs placed in CCC will be permanent.
- CCC is adding an Engines OFF! section to its Website to recognize program participants.
- Security division has changed protocol to physically address idling drivers on a regular basis. Security is currently in the process of getting authorized to write official CCD tickets.
- Lindsay Smith continues to talk to event planners about idling reduction in event pre-conference meetings and will include idling language in materials soon.
- CCC is looking into designating special waiting areas for conference attendees to reduce the need for people to wait on idling buses/coaches.

Transportation companies, vendors and drivers have been receptive to idling reduction education and Engines OFF! program, although more education could be used

- 27% of transportation companies signed Engines OFF! idling reduction pledges and returned to Matthew Marshall, Idling Program Manager.
- All transportation companies that were offered idling reduction education meetings by Matthew agreed to the meetings by company management.
- Destination management companies agreed to share idling reduction Fact Sheet with drivers. They made idling reduction announcements twice daily during Democratic National Convention.
- Matthew has distributed 392 Engines OFF! magnets to taxis, coaches and limousines, and 110 clocks to buses.
- When approached by CCC Security, drivers claimed they say they understand idling limits at the CCC and most are cooperative unless the weather is very hot.
- Trucking companies could use more education, since logistic companies said their truckers still complained that stopping and starting up was hard on their engines.

Perceived enforcement “threat” has been effective in raising awareness of the idling ordinance, but has caused some wariness among transportation companies

- CCC Security reported that drivers his team approaches know the idling limits and that Security can enforce it. Only one member of the transportation forum prior to the Engines OFF! campaign knew details of the ordinance.
- Drivers made overt efforts to communicate their idling reduction compliance to avoid fines when approached by Security, according to the CCC Security manager.

- Although Security officers talk to drivers about idling, they have not written any warnings to drivers because most of them are complying. Security works with drivers on hot days when they get the most complaints.
- Taxi companies are especially wary about the possibility of fines. The Security manager reported that one taxi company said they would boycott the CCC if the enforcement was too harsh. Interviews with taxi companies confirms this wariness to fines as well.
- Taxis are the most difficult group to enforce the idling ordinance with, since they are moving slowly through pick up lines. The Security manager has worked with the taxi starter to improve idling when possible.

There were no complaints from the Emily Griffith Opportunity School about idling this past summer

Participation Summary

Pledges

- 27% (24 out of 90) transportation companies who were offered the Engines OFF! pledge signed and returned it

Idling Reduction Education Meetings

- Arrow Stage Lines
- Brede Colorado
- Colorado Charter Lines & Tours
- Freeman Decorating Company
- Ramblin Express
- Carey Limousines
- Cab Wash event—Freedom Cab, Yellow Cab, Super Shuttle, Metro Taxi

Engines OFF! Public Commitment Materials (Magnets & Clocks Distribution)

- 392 magnets taken by 7 taxi, limousines, shuttle and coach companies
- 110 clocks taken by 2 coach companies

Sounding Board Volunteers

- Kris Swenson, DSC
- Adam Tobiasz, Hyatt Regency
- Karl Heitz, Arrangers
- Kyle Brown, Metro Taxi
- Mary Cowen, Carey Limousines
- Richard Morris, Freedom Cabs
- Brian Matthews, RTD
- Bill Mitchell, DCVMB
- Brian Clark, ETA
- Mike Percy, DIA
- Lynn Marinkovic, Arrow Stage Lines

Engines OFF! Pilot Program Components

Pre-Campaign Observations (March – May 2008)

- Observations of commercial vehicle idling behavior conducted in March - May 2008
- Interviews conducted with transportation company owners, DMCs and truck drivers to identify barriers

Program Development (May- June 2008)

- Presented program overview at Transportation Forum and solicited Sounding Board members
- Message testing conducted with coach drivers
- Called Sounding Board members for input
- Named program and developed logo
- Developed new signage for CCC
- Developed messaging, letters to transportation companies, DMCs
- Created pledge and associated incentives for signing, include pre-addressed return envelope
- Identified and created incentive reminder items (clocks and stickers)

Program Launch and Implementation (July – Oct. 2008)

- CCC launched program by sending out letters to transportation companies and vendors introducing the Engines OFF! program and asking them to sign a pledge showing their commitment to participation.
- 18 signs were posted in the loading docks and waiting areas
- Security guards were trained on Engines OFF! program and how to approach violators
- Matthew met with taxi, coach and bus companies to educate their management on idling reduction benefits and Engines OFF! program
- Matthew distributed clocks and stickers at meetings with taxi, bus and coach companies
- Lindsay and Matthew met with general services companies to discuss idling reduction for their hiring transportation fleets.
- Lindsay discussed idling behavior with event planners in pre-conference meetings.

Program Follow Up and Continuity (Nov. 2008 – February 2009)

- Matthew will follow up with pledged companies to ask them how they are fulfilling their idling reduction pledge. They need to email Matthew what they're doing, and Matthew will determine if they are doing enough to earn the Mayoral Commendation.
- Lindsay to send follow up letter and thank you's to transportation companies, DMCs and other companies in January letting them know the results of the campaign and encouraging ongoing participation.
- Jeannette and Lindsay present Mayoral Commendation to approved pledged companies at an early 2009 Transportation Forum. Discuss implications for the City, other venues and possible wider rollout.
- Matthew to continue presenting to new transportation companies and DMCs as possible.

Follow up Observations (Oct. 2008)

- Conduct in October so weather is the most similar to the pre-campaign observations and the communication tools have an impact (signage, etc...)
- Conduct observations when conventions are taking place that use the majority of the transportation/DMC companies that signed pledges, took clocks and stickers and/or participated in Matthew's talks.
- Take special note of those companies but also note companies that did not do the pledge/incentives etc... to see if the overall program made a difference with them.

Implications for Rollout at Other Venues

1) There will need to be an idling “champion” at the venue

The role of Lindsay Smith, CCC Sustainability Coordinator, was crucial for implementing the Engines OFF! program. She championed all communication efforts with transportation companies, new signage creation and implementation, training Security and making idling an overall priority at the CCC. Each venue will need someone to own this program.

2) Buy-in will be needed throughout the organization

While a champion can spearhead the program, ultimately everyone within the organization will need to understand and support the program. Initial and ongoing training about idling will need to be conducted with all staff. Management support will be key to approve program elements and communicate the program’s importance within the organization. “Front of the house” employees will be critical as they will have the most contact with drivers and salespeople should communicate the program with conference planners, vendors and other visitors.

3) Anti-Idling communication efforts must be consistent and reinforced

Transportation companies and drivers received a multitude of anti-idling messages during the pilot program, which was key to its success. Any other venue must commit to executing the full combination of communication tactics.

4) A perception of enforcement will help with ongoing behavior change, but should be approached as part of a larger idling-reduction effort

Drivers responded positively to security officers talking to them and reminding them about the idling ordinance. This conveyed a sense that the CCC was taking the ordinance seriously even though Security never gave out a ticket during the program. However, enforcement should not be the main component of the program since transportation companies will likely feel threatened by the efforts.

5) Communication and education with transportation companies need to be ongoing and owned by the venue

While the Engines OFF! program was confined to the CCC, Matthew from CCD was doing education outreach with transportation companies at the same time. Whether a CCD person will be available for ongoing outreach is uncertain. Regardless, any venue executing this program should do additional education outreach to transportation companies and tie into existing transportation programs held by the DMCVB, the City or other events or programs. They will also want to foster relationships with transportation leaders to keep them engaged with the idling reduction efforts.

Appendix

- A. Program Introduction Letter
- B. Partner Idling-Reduction Pledge
- C. Coach Education Fact Sheet
- D. Taxi Education Fact Sheet
- E. Engines OFF! Signage
- F. Engines OFF! Magnets
- G. Program Images



Dear Colorado Vendor:

The Colorado Convention Center (CCC) has recently instituted a sustainability program titled 'Meet Green' in an effort to reduce the impact our meetings have on the environment and our resources, while still providing a first class experience to our visitors. Our goal is to act as a resource and educator for our clients, attendees, and vendors regarding methodology in producing more sustainable meetings. A primary focus of the program is to improve air quality inside and around the convention center. With that in mind, we have worked very closely with the City and County of Denver to create the pilot program, 'Engine's OFF!'

Idling Reduction--We Need Your help

Clean air is one of the main areas of focus visitors list as their reason for choosing Denver as a destination, so it is important to all of us to protect this important asset. The goal of the new 'Engine's Off' program is to determine the best ways to **voluntarily** reduce idling of commercial diesel vehicles at local venues around the City. Motor coaches, semi trucks, vendor and general contractor vehicles typically idle far longer than the current 10 minute City idling ordinance, contributing up to 25 – 40% of Denver's "brown cloud."

According to recent observation research conducted at the CCC during large conventions, 81% of commercial vehicles were found idling - half of those were idling for more than 10 minutes. Excessive idling likely occurs at other venues and hotels around the city.

How You Can Help

You can have a strong impact on idling behavior by making compliance with the City and County of Denver idling ordinance a priority for your company. Research shows that drivers are responsive to anti-idling requests when it is part of company policy.

Denver's idling ordinance prohibits idling for more than 10 minutes.

The maximum idling fine is \$999.00.

NOTE: The ordinance is expected to be reduced to 5 minutes in the fall of 2008.

Our goal is to reduce idling voluntarily, although we will be taking note of organizations who are egregious and consistent offenders of this important ordinance. Here are several suggestions on how to reduce idling practices among drivers:

- Add anti-idling guidelines into your company's policies and practices
- Alert passengers that your vehicles will only load several minutes before departure
- Review the attached anti-idling message with your drivers often; post or distribute

I also encourage you to take our enclosed pledge and participate in the Engines OFF! effort. The CCC and City are offering incentives including public recognition as a "green" vendor, driver give-a-ways, and a Mayor's Commendation for your efforts. Please contact Matthew Marshall (720) 913-1516 or myself for more information.

Thank you in advance for your efforts to help keep Denver's air clean for our visitors, our neighbors and staff.

Regards,

Lindsay Smith
Sustainability Program Administrator
Colorado Convention Center
lsmith@denverconvention.com



DRIVERS RECOMMENDATIONS FOR REDUCING IDLING

Our company requires drivers to follow the City and County of Denver’s idling ordinance. It’s good for Denver’s clean air, good for business and good for your health.

**Denver’s idling ordinance prohibits idling for more than 10 minutes.
The maximum idling fine is \$999.00.**

OTHERS REASONS NOT TO IDLE EXCESSIVELY

Idling Causes Health Problems

- The exhaust from idling pollutes the air outside and in your cab.
- Health problems from breathing these fumes include lung infections, pneumonia and influenza.
- This can result in lost work days, impaired driving or premature death.

It’s Disrespectful to Neighbors

- Diesel exhaust creates odors and health risks to the schools, businesses and visitors around the convention center and other venues.

Idling Wastes Money & Gas

- Diesel truck engines use about one gallon of fuel while idling. That’s over \$4.00 an hour.

Idling Harms Denver’s Air Quality

- Diesel engine idling exhaust contributes to 25% - 40% of Denver’s “brown cloud.”
- Visitors come to Denver for the clean air—adding to pollution may turn people off to visiting Denver

TIPS TO REDUCE IDLING

- Load passengers a few minutes before departure instead of idling to keep air conditioning/heat on for passengers waiting on-board.
- Every minute adds up. Turn off vehicle while unloading passengers or freight.



Idling Reduction Pledge

As part of Colorado Convention Center's Meet Green sustainability program, we must all do our part to improve air quality inside and around the facility. With the increased attention on reducing greenhouse gases and their effects on our environment, now is the time for our industry to be a leader in creating positive change.

This can start with reducing idling. Exhaust fumes from vehicle idling are a major source of Denver's air pollution. Idling can seriously affect the health of drivers and our guests, and our neighbors also deserve to breathe healthy air. It not only wastes gas and money, it wears heavily on engines and reduces vehicle life.

We recognize that air quality is everyone's responsibility and transportation companies have the ability to improve it by reducing the amount of time vehicles idle.

Our company pledges to make a concerted effort to reduce idling among our fleet and comply with the City of Denver's idling ordinance. We will:

- Incorporate compliance with Denver's idling ordinance in our company policy
- Regularly discuss the importance of not idling with our fleet drivers

Idling reduction will be made a priority in our organization. We will emphasize with drivers alternatives to idling including:

- Turning engines off when waiting for any reason while not in traffic
- Turning engines off when loading and unloading passengers
- Loading passengers right before departure instead of having them wait on board with the engine running

For those signing the pledge and demonstrating their commitment to reducing idling, your company's name will appear on Web sites for the CCC, the DMCVB and the City's idling reduction Web page. You will also receive a Mayoral letter of commendation for your committed participation.

This pledge serves as our commitment to the Colorado Convention Center and the City of Denver, and to improving its air for all who visit, live and work here.

Company

Date

Signature

Phone

Please return by mail or fax by July XXXXXXXXXXX, 2008 to participate in the program. Lindsay Smith, ADDRESS, FAX ##



Drive Your Best for DENVER'S AIR

During the DNC and beyond.

As one of the most energy-efficient ways to travel, coaches play a critical role in making transportation environmentally sustainable and reducing America's dependence on oil. However, it is easy for members of the public to forget these facts when they are standing next to an idling bus. Diesel exhaust can be unpleasant and harmful to drivers, passengers, and anyone else nearby—especially in a localized area with a lot of bus traffic or when a bus idles for an extended period of time.

As part of the City of Denver's "Engines Off!" anti-idling campaign and "greening" efforts for the Democratic National Convention, transportation companies are stepping up to do their part to protect our air and reduce energy consumption—and save money in the process.

As a driver, you are on the front lines of this effort, and your driving habits can play a big part in making these efforts a success. Fuel efficiency isn't just about what you drive, it is based a lot on how you drive: the difference between an "ok" driver and a "great" driver can be a significant difference in mpg. Most coach drivers already make an effort to reduce fuel use, but even the best and most-experienced drivers can find ways to stretch each gallon a bit farther. On the reverse side of this sheet are some of the top fuel-saving methods—making an extra effort to follow them every day can add up to big savings.



The other great way to make a difference is to share these tips—and any others you have—with other drivers and with your passengers. Let people know what you're doing to save gas and protect the air, and encourage them to do the same when they drive. As a professional driver, you can set an example and help educate other drivers and the public about the difference they can make through better driving practices (most regular drivers waste 1-2 tanks of gas every year by idling, and could improve their mpg by up to 30% by driving less aggressively).

Engines OFF! D E N V E R



Sources for the information and guidelines include:

Prevost, Daimler Bus, Motor Coach Industries, Heavy Duty Trucking, Ford Motor Company, Cygnus Business Media, EPA.

Some of the top ways to save fuel and keep the air clean:

1) TURN YOUR ENGINE OFF WHEN YOU STOP:

Idling wastes fuel and is not good for the engine.

Idling uses more fuel than restarting the engine. Restarting the engine has little impact, whereas excessive idling causes significant wear and tear over time.



Modern diesels require little warm-up and cool down time (a few minutes at most). **Engine manufacturers agree: it is usually worth it to shut the engine off, even for short stops of 5 minutes or less.**

If you need to wait for extended periods in very hot weather, try to park in the shade, turn the engine off, and wait somewhere cool if you can. On occasions when you need to maintain the cabin temperature over a long stop, don't just idle the entire time you wait: shut off the engine for a least part of the time, and only idle for periods long enough to keep the temperature reasonable until it is getting near your departure time.

2) DRIVE SMOOTHLY & MAINTAIN AN EVEN SPEED:

Look ahead in traffic, accelerate/slow-down smoothly, and keep speed even.

Don't instinctively feather the accelerator to maintain speed on level pavement; remember that often the vehicle's weight alone will keep it rolling—ease off the gas and just coast when you can.

In city driving, acceleration accounts for 50% of fuel use, and it takes 20% less fuel to accelerate from 5mph than from a complete stop. Approach red lights slowly and try to time your arrival at the intersections just before the light turns to green.

Smooth, even driving can improve your fuel efficiency by up to 1/3 (5-10% around town to as much as 33% for highway driving). For low mpg vehicles, a little improvement can add up fast—if you are able to boost your fuel efficiency from 6mpg to 8mpg, you can save over 40 gallons of fuel every 1,000 miles of driving.

3) GO THE SPEED LIMIT:

Go the speed limit on the highway and use cruise control if you can. About 55-60mph is the most efficient speed. Every 5mph over 60 reduces fuel efficiency by about 7-10%.



Try to cruise in the engine's "sweet spot"—the point where power and economy are highest is around 1,450 rpm for many of today's heavy diesels and about 1,600 rpm for many older engines.

Motor Coach Industries estimates that reducing your highway speeds by 5mph and driving smooth around town can result in savings similar to paying about \$0.60 less per gallon of fuel.

What coach and diesel engine manufacturers have to say about idling:

"On a hot summer day in Denver you will not need any time to warm up, you should be able to start the coach and proceed. Engine cool-down time is around 1 minute of idle time."

"For medium-short duration stops the engine should be shut down as much as possible, we recommend shutting off the engine as often as possible even if the stop is only for five to ten minutes. Reducing idling and fast idling are the most efficient way to obtain quick results in reducing emissions." --**Maurice Gagne, National Service Manager, Prevost**

"There's no reason to idle for extended periods of time. As a rule, you should generally never idle more than 3-5 minutes. I always remind drivers that the best way to warm up a coach and to get the cabin to a comfortable temperature is to drive for a 2-5 miles—don't start it up and idle." --**Don Jensen, Daimler Bus (maker of Setra Coaches and Detroit Diesel Engines).**

"Starting and stopping the engine is actually easier on the engine than prolonged idling." --**Brian Lindgren, Kenworth Truck Co.**

"There is no additional wear when shutting [the engine] on/off several times a day. There are benefits in fuel economy and wear/durability when shutting down rather than idling." --**Mike Powers, Product Development Manager, Caterpillar Global On-Highway.**

Drive Your Best to SAVE FUEL & KEEP DENVER'S AIR CLEAN

During the DNC
and beyond.

Fuel efficiency isn't just about what you drive, it also about how you drive your Crown Victoria, van, shuttle bus, limo or other vehicle.

Here are the top three proven tips to improve your fuel efficiency and keep money in your pocket:

1) TURN YOUR ENGINE OFF WHEN YOU STOP:

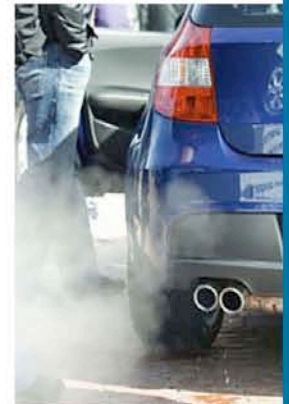
Idling wastes fuel and is not good for the engine:

FORD MOTOR COMPANY SAYS: "Avoid idling more than 30 seconds (when not in traffic)—Frequent restarting has little impact on the battery and starter (~\$10 a year worth of wear), whereas excessive idling can actually damage important engine components."

Idling for just 10 seconds uses more fuel than restarting the engine.

EXAMPLES:

1. Turn your engine off to load and unload passengers and their luggage.
2. On the coldest mornings, only 30-60 seconds are needed to warm up the engine.



2) DRIVE SMOOTHLY AND TRY TO MAINTAIN AN EVEN SPEED:

In city driving, acceleration accounts for 50% of fuel use; and it takes 20% less fuel to accelerate from 5mph than from a complete stop. Maintain an even speed and avoid using excessive gas to accelerate fast. Smooth driving can improve your fuel efficiency by up to 1/3.

EXAMPLES:

1. Don't follow other cars too closely so you can avoid unnecessary breaking and accelerating.
2. Accelerate smoothly—stepping hard on the gas uses a lot of fuel.
3. Take your foot off the gas early so you can coast down hills and up to red lights and stop signs.

3) DON'T SPEED:

55-60mph is the most efficient speed:

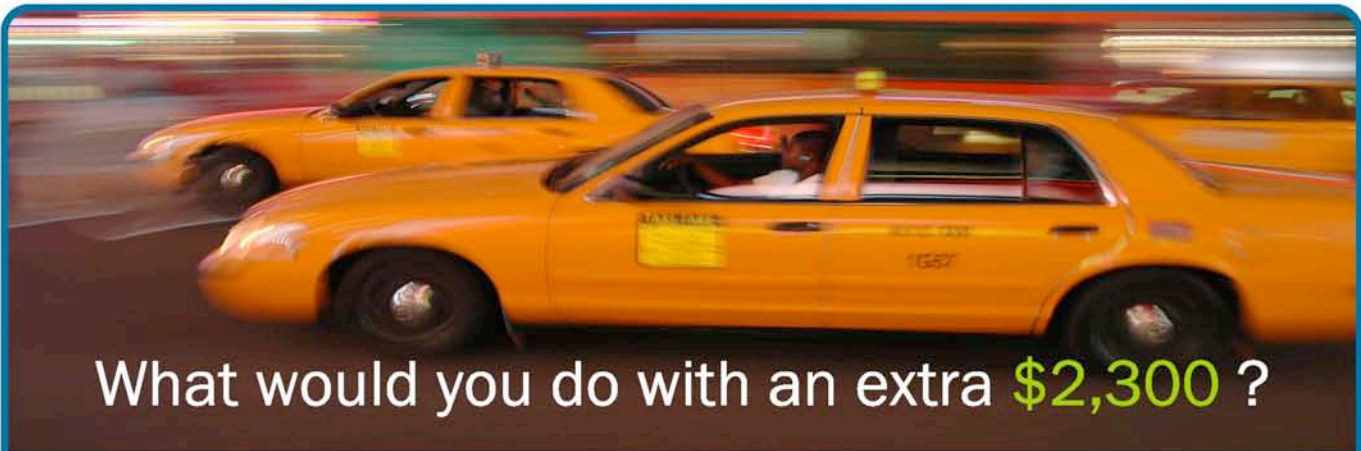
EXAMPLES:

1. Every 5mph over 60 reduces fuel efficiency by about 7%. That is like paying \$0.30 more per gallon: Driving 70 instead of 60 costs the same as paying \$4.50 per gallon instead of \$3.90.
2. Go the speed limit on the highway, and use cruise control when you can.



We know you take pride in what you are doing. Help others join you by sharing these tips with fellow drivers and passengers.

Information sources include: Ford Motor Company, US EPA, Edmunds, and Consumer Reports.



What would you do with an extra \$2,300 ?

Here is an example of two drivers, “Aggressive Al” and “Efficient Earl.” Both drive Crown Victorias 50,000 miles per year, but their driving styles are very different:



Aggressive Al always:

- Leaves his engine running when unloading passengers and collecting the fare, or during other “short” stops.
- Drives as fast as he can on the highway.
- Drives as fast as he can up to lights and stop signs, and then floors the gas pedal when the light turns green.

Al gets 18mpg, and spends \$10,800 on gas over the course of the year.

On the other hand, Efficient Earl:

- Turns his engine off whenever he stops when not in traffic—even if the stop is only for 60 seconds or so.
- Goes the speed limit on the highway, uses cruise control to maintain an even speed, and keeps some distance between other cars so he doesn’t need to keep slowing down and speeding up all the time.
- Takes his foot off the gas a bit early when there is traffic or a light up ahead and tries to time it so he doesn’t have to come to a stop, and then smoothly accelerates back up to cruising speed.



Earl gets 23mpg, and spends only \$8,475 a year on gas; \$2,300 less than Al!

Earl’s good driving will save \$2,300 compared to Al!

Al might get places a little bit faster sometimes, but think of how many more hours he has to work to pay for the gas he wastes. Passengers probably appreciate the smoother ride in Earl’s cab and that he cares about the environment—so Earl probably gets better tips, too.

Engines **OFF!**
D E N V E R

EXHAUST IS HARMFUL

**TURN ENGINE OFF
WHEN STOPPED**

IDLING PUNISHABLE BY
FINES UP TO \$999

10 MINUTE IDLING LIMIT, PER DENVER MUNICIPAL CODE SEC. 4.43



Engines OFF!
D E N V E R



PLEASE RESPECT OUR NEIGHBORS

**TURN ENGINE OFF
WHEN STOPPED**

IDLING PUNISHABLE BY
FINES UP TO \$999

10 MINUTE IDLING LIMIT, PER DENVER MUNICIPAL CODE SEC. 4.43



Engines OFF!
D E N V E R



Ask me about
taking care of
Denver's air

Engines **OFF!**

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care of Denver's air

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