



# Drive Your Best for COLORADO'S AIR

## Engines OFF!



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 localized areas with a lot of bus traffic or when a bus idles for an extended period of time.

*Transportation companies can be leaders and partners in efforts 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 them successful. Fuel efficiency isn't just about what you drive. It is also about how you drive. The difference between an "OK" driver and "great" one 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 little farther.



- Did you know that the average driver wastes 1-2 tanks of gas every year by idling?
- Did you know that driving less aggressively can improve fuel efficiency by more than 30%?

In 2011, the Colorado trucking industry joined with local governments and clean air advocates in Colorado to create a set of recommendations for a **statewide idling standard. HB11-1275**, which became effective on July 1, 2011, allows communities to limit idling to five minutes within a sixty-minute period for large, commercial diesel vehicles (14,000+lbs) with certain exemptions. This consistent guideline enables drivers to comply with the law and protect Colorado's air quality across the state, rather than having to follow a diverse patchwork of local regulations.

*Following the top fuel-saving methods on the reverse side of this sheet can add up to big savings!*

Another great way to make a difference is to share these tips – and any others that 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.

Created by:

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Sources for the information and guidelines include:

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

## Top tips 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 starting the engine. Excessive idling causes significant wear and tear on vehicle components over time, while restarting the engine has little impact on engine parts. Modern diesel engines 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 idle the entire time that you wait! Shut off the engine for at least part of the time. Only idle for long enough to keep the temperature reasonable until it is near your departure time.

### 2) DRIVE SMOOTHLY & MAINTAIN AN EVEN SPEED.

**Look ahead in traffic, speed up & slow down smoothly, and keep speed even.** Don't instinctively feather the accelerator to maintain speed on level pavement or step hard on the gas pedal. This wastes a lot of fuel.

**In city driving, acceleration accounts for 50% of fuel use. It takes 20% less fuel to accelerate from 5 MPH than from a complete stop.** Remember that often the vehicle's weight alone will keep it rolling. Ease off the gas and just coast when you can, for example when approaching stop signs and red lights.

**Smooth, even driving can improve your fuel efficiency by up to 33%.** For low MPG vehicles, a little improvement can add up fast! Boosting your fuel efficiency from 6 MPG to 8 MPG 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 55-60 MPH is the most efficient speed. Every 5 MPH over 60 MPH 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.

#### What do coach and diesel engine manufacturers and maintenance experts say about idling engines?

"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 short-medium 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 5-10 minutes. Reducing idling and fast idling are the most efficient ways to obtain quick results in reducing emissions."

~*Maurice Gange, 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 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 Trucking 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*

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

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