

Vehicle Idling Q&A

Compiled by the Thetford Energy Committee

What are the benefits of reducing engine idling?

Reduced idling saves fuel and thus money, reduces pollutants (particularly those that cause respiratory problems like asthma), saves wear and tear on the engine, and reduces your contribution to climate-changing greenhouse gases.

What types of situations lead to unnecessary idling?

Common idling situations include warming up vehicles (other than necessary defrosting); dropping off and picking up children at school; stopping at the post office, stores, and recycling; pulling over to talk on cell phones; waiting to pass through roadwork sites; and waiting at drive-thru windows. The EPA recommends parking your car and going into restaurants, banks, and the like instead of idling in drive-up lanes.

Does a car need to be warmed up before driving?

No.¹ Although emission control systems take longer to warm up and become fully operational in cold weather, idling will not help. Modern vehicles need little warm-up; they're most efficient when being driven because driving warms up the catalytic converter and other mechanical parts not warmed by idling.² Idling for long periods in cold weather can actually cause excessive engine wear.³ According to the US Department of Energy, "[t]he best way to warm up a vehicle is to drive it. No more than 30 seconds of idling on winter days is needed. Anything more simply wastes fuel and increases emissions."⁴ NPR's Car Talk Guys suggest 30 seconds of warm-up when it's 25 degrees out, and a minute if it's 10 degrees or lower.⁵ Consult your vehicle manual for the manufacturer's advice on appropriate vehicle warm-up.

Do diesel engines need to be warmed up before driving?

No, except in very cold weather, and then for less than a minute.⁶ (Note that heavy diesel equipment has different warm-up needs: follow the manufacturer's instructions for vehicle warm-up and cool-down.)

Do older vehicles need to be warmed up before driving?

Vehicles with direct injection engines (produced beginning in the mid-1980s) do not need to be warmed up.⁷ Older cars need only a few minutes of warm-up. On older cars with carburetors, extended warm-up (5 to 10 minutes) may damage the engine by diluting the oil with excess fuel.⁸

Does it waste gas to turn the engine off and restart it?

In most situations, you will save gas by turning the engine off and restarting it again rather than idling the engine. There are several opinions about the optimal idling time vs. turning off the engine. The US EPA recommends 30 seconds, the Canadian Office of Energy Efficiency recommends 10 seconds, and Ford Motor Company says 20 seconds.⁹ If your vehicle has a diesel engine, idling actually lowers the coolant temperature faster than shutting off the engine, so switching the engine off keeps it warm longer.¹⁰

Is restarting a car frequently bad for starter/ignition, engine, or battery?

No, assuming the start/restart is not excessive.¹¹ The wear on parts that restarting the engine causes adds about \$10 a year to the cost of driving -- money that you'll recover several times over in fuel savings from not idling. And excessive idling is bad for your engine because the engine isn't working at peak operating temperature, therefore fuel doesn't undergo complete combustion. This leaves fuel residues that contaminate engine oil and make spark plugs dirty.¹²

Vehicle Idling Q&A

Compiled by the Thetford Energy Committee

Transportation Options

Take advantage of available ride sharing and public transportation options:

There is a **commuter parking lot** for carpooling and public transit on Rt. 113 just east of the I-91 Thetford exit.

Stagecoach bus service picks up riders there for trips into the Hanover, Lebanon, White River area. For fares, complete schedules or to schedule pickups, contact Stagecoach at 802-728-3773, scoach1@sover.net, or <www.stagecoach-rides.org>

Advance Transit provides free bus service between the core Upper Valley towns: 802-295-1824, info@advancetransit.com, schedules online at <www.Advancetransit.com>

Vital Communities provides a comprehensive map showing all Upper Valley bus routes at <www.vitalcommunities.org/Transport/transportmap.htm>

Upper Valley Rideshare provides free carpool matching services for commuters in VT and NH, with FREE Emergency Ride Home benefit for all registered carpoolers. Broker for Vermont RideShare. 802-295-1824 x21, info@uppervalleyrideshare.com, <www.uppervalleyrideshare.com> and <www.vermontrideshare.org>

Tire Inflation

Properly inflating tires improves gas mileage by up to 5%. Get free air for tire inflation at Huggett's & Chuck's Auto in East Thetford and Thetford Auto Service in Thetford Center.

-
- ¹ Airwatch Northwest literature search and phone survey of Ford Motor Company, General Motors, American Honda, Toyota, AAA of Washington State, Auto Alliance, and Automotive Service of America. <www.airwatchnorthwest.org/wa/NO_IDLE/PDFs/Emission_Questions_Recap.pdf>
 - ² <www.cleanair.utah.gov/winter_driving.htm>
 - ³ (US EPA, Office of Mobile Sources, "Your Car and Clean Air: What YOU Can do to Reduce Pollution." <www.epa.gov/OMS/consumer/18-youdo.pdf>)
 - ⁴ <www1.eere.energy.gov/consumer/tips/printable_versions/driving.html>
 - ⁵ <www.cartalk.com/content/features/fueleconomy/>
 - ⁶ Airwatch Northwest literature search and phone survey of Ford Motor Company, General Motors, American Honda, Toyota, AAA of Washington State, Auto Alliance, and Automotive Service of America. <www.airwatchnorthwest.org/wa/NO_IDLE/PDFs/Emission_Questions_Recap.pdf>
 - ⁷ Airwatch Northwest literature search and phone survey of Ford Motor Company, General Motors, American Honda, Toyota, AAA of Washington State, Auto Alliance, and Automotive Service of America. <www.airwatchnorthwest.org/wa/NO_IDLE/PDFs/Emission_Questions_Recap.pdf>
 - ⁸ <www.cartalk.com/content/columns/Archive/2008/January/04.html>
 - ⁹ (US EPA, Office of Mobile Sources, "Your Car and Clean Air: What YOU Can do to Reduce Pollution." <www.epa.gov/OMS/consumer/18-youdo.pdf>)
 - ¹⁰ <www.cleanair.utah.gov/winter_driving.htm>
 - ¹¹ Airwatch Northwest literature search and phone survey of Ford Motor Company, General Motors, American Honda, Toyota, AAA of Washington State, Auto Alliance, and Automotive Service of America. <www.airwatchnorthwest.org/wa/NO_IDLE/PDFs/Emission_Questions_Recap.pdf>
 - ¹² <www.cleanair.utah.gov/winter_driving.htm>