

REDUCING VEHICLE IDLING

Don't Sit Idly By

Did you know...

If each car in the United States idles just 6 minutes per day, about 3 billion gallons of fuel is wasted annually, costing drivers \$10 billion or more. Argonne research suggests it pays to turn your engine off if you're going to be still for more than 10 seconds.

OPPORTUNITY

One fast-food chain claimed that it was "greener" to use the drive-through than to park and go into the restaurant. We needed to find out if this was true.

SOLUTION

The U.S. Department of Energy's Clean Cities program funded Argonne to measure and compare fuel use and emissions during idling and restarting to enable data-based decision making for the driving public.



Even for short stops, it makes sense to turn your vehicle off to minimize fuel use and CO₂ emissions.



Argonne engineers performed vehicle studies at the laboratory's Advanced Powertrain Research Facility to determine the impacts of idling and restarting.

RESULTS

Dynamometer tests in Argonne's Advanced Powertrain Research Facility revealed that restarting after parking and going into a business uses less fuel—and produces less CO₂—than does idling 10 seconds at a drive-through window, and other emissions from restarting a warmed-up car are much smaller than those from cold starts. Measurements also confirmed that your car warms up much more slowly by idling than by driving—and gets you nowhere. Idling fuel usage was shown to vary from 0.2 to 0.5 gallons per hour for passenger vehicles across a range of sizes.

Research funding provided by the U.S. Department of Energy's Vehicle Technologies Program.

BENEFITS

This recent work is just part of Argonne's pioneering research into the science and economics of idle reduction for vehicles ranging from cars to heavy-duty trucks. The laboratory's efforts have resulted in several landmark studies and tools to help drivers and organizations determine the best and most cost-effective ways to reduce the time they idle their vehicles. Argonne also works with the Clean Cities program to produce outreach tools that can be used in local idle reduction campaigns.

