Clean Air Clean Energy

Idle Threat to the Environment?

When a vehicle idles, it gets zero miles per gallon. People comment on all the vehicles left idling outside my office while their owners run errands down the street. This is unnecessary, expensive and damaging to the vehicle as well as the environment. Police advise that it's also an invitation to theft.

I'm not an expert on vehicles, so I spoke with Frank Hansen, senior electronic engine control technician for Ford. Idling is surprisingly hard on your engine. It isn't operating at its peak temperature, so fuel doesn't burn completely. This leaves residues that contaminate engine oil. During idling, spark plug temperature drops, which makes the plugs get dirty more quickly, and increases fuel consumption by up to 5%. Hansen commented, "I can tell when I see a car that has been idled a lot, because the plugs foul up prematurely. Idling reduces spark plug life by 40-50%."

Excessive idling also lets water condense in the vehicles exhaust, which can lead to corrosion. Coolants and lubricants don't work properly and there is far more wear and tear than normal driving. "If your vehicle has a diesel engine, shutting it off for brief stops keeps the engine warmer than idling. The coolant dissipates heat very slowly when stopped, but it's faster when idling," says Hansen.

Many people are concerned about the fuel used to restart the car. Ten seconds of idling can use more fuel than turning off the engine and restarting it - even less time for a diesel. If you're stopping for more than 10 seconds, except in traffic, turn off the engine. It's better to park and walk inside than to sit in line at a drive-through too.

Decades ago, vehicles needed long warm-up times. With computer-controlled, fuel-injected engines, 30 seconds of idling before driving is plenty, even in winter. "Catalytic converters have to be at 'light-off' temperature to work - around 700 degrees F. It can take 10 times as long to reach this temperature if the car is left idling rather than driving it during the warm-up. Until then, the exhaust is completely unprocessed -the catalytic converter is doing nothing", warns Hansen. This means that when a car is left idling in the driveway after a cold start, the air immediately around the driver's home is being polluted by exhaust that is much dirtier than when the vehicle is driving.

Driving a vehicle rather than idling it cuts the warm-up time in half, which reduces fuel consumption and emissions. The tires, transmission, wheel bearings and other moving parts don't warm up until you drive the vehicle. Avoid high speeds and rapid acceleration for the first 5 km. Using a block heater to pre-warm the engine and lubricants is even better. The engine starts more easily and warms up sooner, and the car will warm up faster inside too. Use an automatic timer to switch the heater on 2 hours before you need to drive. Parking in a garage or shelter also reduces warm-up and saves on windshield scraping.

The cost:

Virtually nothing, just a habit to break. The annual cost of wear on parts from starting the engine more frequently averages around $10.

The payback:

Ten minutes of idling uses up to 0.4 litres of fuel. The average Canadian could save $70 per year by reducing excessive idling. Your vehicle is less likely to get stolen and gets less wear and tear.

The environmental bonus:

On a cold day, Canadians idle their vehicles unnecessarily for more than 75 million minutes - equal to one vehicle idling for 144 years. We idle 40% less in summer - still too much. If every driver of a light-duty vehicle in Canada reduced idling by just 5 minutes a week, we would save 700 million litres of fuel yearly, reduce smog emissions and prevent more than 1.6 million tonnes of carbon dioxide from entering the atmosphere.

For more information see the Natural Resources Canada website:
http://www.oee.nrcan.gc.ca/idling/

If you would like more information about the Caledon Clean Air Clean Energy program, you can reach us at greenenergy@woodrising.com 519-927-0548.

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Step Up To Kyoto. Future generations will thank-you a tonne.