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Who killed the natural gas car?

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I know, the headline is poaching the title of that documentary about electric cars, but it's still a good question.

Remember when gasoline prices spiked in the early 1980s and suddenly taxi- cabs and airport limos and even private cars were converting to CNG (compressed natural gas) as fast as they could?

That rush of enthusiasm resulted in more than 20,000 of them on Canadian roads and about 220 service stations to fill them up. Now the number of both vehicles and service stations have been cut in about half.

Natural gas vehicles with their environmental benefits have stalled out - at least in Canada.

Alicia Milner watches as a car converted to run on natural gas is filled with fuel. *(SEAN KILPATRICK/THE GLOBE AND MAIL)*

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In the United States, there's still a big push on CNG for cars and trucks. The same goes for Europe and South America, too. In fact, the world's largest CNG fuelling station just opened near the airport in Lima, Peru.

Although Canada has plenty of natural gas, the federal and provincial governments are all on the ethanol bandwagon, preferring to convert food into fuel by subsidizing agriculture to compete with the energy sector.

Were natural gas vehicles just a dream that went wrong, or do they have a place in our flex-fuel future?

Alicia Milner, president of the Canadian Natural Gas Vehicle Alliance, laments the missed opportunities.

Vaughan: Did we get oversold on the idea of natural gas vehicles?

Milner: No, we didn't get oversold.

After an early and strong start in the 1980s, there were several factors that, unfortunately, created a lot of market uncertainty and led to the conditions we see today.

Government programs and policies were inconsistent. Industry invested in public refuelling stations, and then retreated when station volumes were lower than expected. Deregulation of the natural gas industry further exacerbated the situation.

Then the stations started closing, and the auto makers withdrew their natural gas vehicle offerings.

The fundamental economics still held. With natural gas typically costing 20 to 30 per cent below gasoline, a vehicle owner driving 40,000 kilometres a year could recover their upfront premium of about $6,000 in less than five years. A high-mileage taxi or small business owner would be ahead after a couple of years.

And, with the recent runup in gasoline pricing, natural gas is now 40 per cent below gasoline.

This option for transportation has never been more relevant, considering the air quality and low carbon emission benefits of natural gas vehicles.

Do you want ethanol-like tax breaks and subsidies?

Natural gas for transportation is exempt from excise tax, which is a good start.

What needs to be added are fiscal measures such as tax credits, accelerated depreciation for return-to-base commercial fleets and signals to the auto makers to demonstrate that the government is prepared to create some room for alternative-fuel vehicles.

The U.S. provides a motor vehicle tax credit of between 50 and 80 per cent of the incremental cost of an alternative-fuel vehicle, depending on the vehicle's emissions. The tax credit is in place for five years, and it applies to a range of alternative-fuel vehicles, including natural gas vehicles.

This kind of a fiscal measure would be a good next step to encourage lower- emission vehicles in Canada.

I still see the odd taxi-cab filling up on CNG, but they look pretty old. Car manufacturers boast about their flex-fuel capability, but I guess that doesn't include natural gas.

Auto makers produce natural gas vehicles for sale in other markets, but not Canada.

GM, Ford, Honda, Volkswagen, Mercedes, Fiat and Citroen all sell natural gas vehicles in markets outside of Canada.

These may be bi-fuel vehicles capable of operating on either natural gas or gasoline, or they may be dedicated natural gas vehicles.

The number of natural gas vehicles around the world has quadrupled over the past five years, with approximately seven million vehicles in use today.

The current natural gas vehicle activity in Canada is entirely based on certified aftermarket kits.

So who's doing it right from your point of view? I see California hasn't given up on CNG.

The short answer is everybody but Canada.

California is a good example, in that there are a range of supports in place for lower-emission vehicles. Natural gas vehicles are eligible for state incentives and federal tax credits. Special access privileges for airport taxis and shuttles operating on natural gas have reduced emissions and improved local air quality. High- occupancy vehicle lane access enhances the benefits of natural gas vehicle ownership.

Southern California requires that fleets operating 15 or more vehicles purchase the best available commercial technology. In this environment, natural gas vehicles have flourished.

Half of Southern California's transit buses operate on natural gas, and there are more than 2,000 natural gas-powered refuse trucks in use in the state.

Natural gas use for transportation is an important element in California's plan to reduce smog-related NO{-x} emissions, which adversely affect human health.

What about bio-gas? Is that the way to go, making your gas out of food waste, manure and all that good renewable stuff?

Natural gas is a fossil fuel.

Its carbon content is 25 per cent lower than either gasoline or diesel, so it makes sense to give it serious consideration for the transportation sector.

Natural gas does, however, have its limits as a fossil fuel. And this is where biogas comes in.

Biogas production is based on the decomposition or anaerobic digestion of waste. Biogas produced from waste biomass can be upgraded and purified to a level that is equivalent to fossil gas.

Conventional natural gas vehicles can operate on up to 100 per cent bio- methane. Sweden has about the same number of natural gas vehicles as Canada, but half of these vehicles operate on fully renewable bio-methane.

California already has a transit fleet operating on bio-methane produced from purified landfill gas.

Fleets are beginning to seriously look at the bio-methane option, particularly where there is a

municipal landfill that could supply upgraded biogas to local urban fleets.

Michael Vaughan is co-host with **Jeremy Cato** of **Car/Business**, which appears Fridays at 8 p.m. on Business News Network and Saturdays at 2 p.m. on CTV.