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## Why Quebec is poised for an oil shock

By Richard Gilbert

Special to Globe and Mail Update

**The province produces a surplus of electricity, but continues to rely on a stable supply of crude to power its transportation system**

*A daily post from The Globe's roster of top economists and experts*

If oil stopped flowing to the United States today, its economy could chug along for 80 days, thanks to its Strategic Petroleum Reserve. Quebec imports even more of its oil than the U.S. and has no such reserve, making its economy especially vulnerable to perturbations in the world supply of oil.

Over 90 per cent of the crude oil used in Quebec is imported from outside Canada. Algeria is the largest supplier. The U.S., which imports a much lower share - about 65 per cent - with Canada as the major supplier, is hugely concerned about the security of its supply.

Much oil remains below land and sea - and perhaps more oil-yielding material such as bitumen - but the oil that can be produced easily and inexpensively is being quickly used up. If you need evidence of how hard things are becoming, note that, even as the clean-up in the Gulf of Mexico continues, BP has hinted that it hopes to drill again in the Macondo Prospect, where the oil is 4.1 kilometres below the seabed and the Gulf is 1.5 km deep.

The U.S. government's Energy Information Administration (EIA) has estimated that if oil is available, world demand for it will rise by some 15 per cent by 2028.

However, EIA continued, by then production from existing and planned oil fields will fall by 40 per cent. This will result in a shortfall of 43 million barrels a day - half of current world production - to be met from what EIA described as so-far unidentified sources of oil.

Thus, major perturbations in the world supply of oil seem likely during the next few decades. Quebec's extreme vulnerability provides a strong imperative to reduce its oil consumption.

Relief could come from discoveries of oil in Quebec, but efforts in this direction have not been promising.

More than three quarters of the oil used in Quebec is used for transportation. Thus, a key part of the solution to Quebec's oil vulnerability lies in the fuelling of transportation from sources other than oil.

Almost 100 per cent of Quebec's transportation is fuelled by oil. Trivial amounts are fuelled by electricity, chiefly Montreal's metro and suburban trains, and by ethanol mixed with gasoline.

Alternatives include ramping up production of biofuels, notably ethanol, and switching massively to electric traction. The second seems the obvious route for Quebec, which already produces a surplus of electricity. The question is how to make the switch.

*Richard Gilbert is a Toronto-based consultant who focuses on energy and transportation. His latest book is *Transport Revolutions: Moving People and Freight without Oil*, written with Anthony Perl. Future posts will discuss how a switch to electric traction might be achieved.*