

SFU researchers chart a path to decarbonizing Canadian transport in new report

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A new report from researcher Tiffany Vass and professor Mark Jaccard in Simon Fraser University's School of Resource and Environmental Management challenges several assumptions about decarbonizing Canadian transport.

The [report](#), "Driving Decarbonization: Pathways and Policies for Canadian Transport," focuses on both actions – energy efficiency, fuel switching, urban redesign, and lifestyle changes to reduce transport emissions – and policies – the mechanisms governments use to motivate these actions by individuals, institutions and corporations.

One key message from the 50-page report is that a rapid reduction in the consumption of gasoline and diesel can happen now, in contrast to the conventional narrative that transport decarbonization must await innovations in batteries, hydrogen storage, and "blendable" biofuels. Just as Brazil rapidly reduced gasoline use in the 1980s and Sweden is reducing gasoline and diesel use in buses and trucks today, Canada can quickly increase the consumption of 85 percent ethanol in dedicated flex-fuel vehicles and 100 percent biodiesel in modified trucks.

"Vehicles using electricity and maybe hydrogen will ultimately play a key role, as will reduced [vehicle](#) use with more transit and cycling," says co-author Mark Jaccard. "But with just a bit of political leadership, we could be using the existing distribution infrastructure of the petroleum

industry to accelerate the adoption of flex-fuel vehicles using ethanol and trucks and other heavy vehicles using biodiesel, thus rapidly reducing our net carbon emissions in transport."

And what would that [political leadership](#) look like? "While some economists argue that we must wait until politicians set sufficiently high carbon taxes – a 30-year argument with little to show – our political leaders can instead mimic and even surpass activist jurisdictions like California with highly flexible fuel regulations." says Jaccard. "As the report shows, a low carbon fuel standard can dramatically reduce the life-cycle carbon intensity of energy used in [transport](#) over the coming decades, with an economic efficiency performance close to that of [carbon](#) taxes."

More information: Driving Decarbonization: Pathways and Policies for Canadian Transport: rem-main.rem.sfu.ca/papers/jaccard/Vass-Jaccard%20Biofuel-CFS%20in%20Canada%20Transport%20June%202017.pdf?_ga=2.21968763.1798153659.1498825214-2021187452.1495712198

Provided by Simon Fraser University

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