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Rethinking Green: Save the environment: Don't take transit

Kevin Libin, National Post

Ian Lindsay/Canwest News Service

In this five-part series, the *National Post* looks at unexpected ways to help the environment. Read part one here and part two here. Today, in the third instalment, the problem with public transit.

When the Toronto Transit Commission announced in November it would hike fares a 25¢ in the new year -- a roughly 10% increase -- it blamed the usual suspects: rising costs of fuel and wages.

The system, said TTC chairman Adam Giambrone, faced a $100-million shortfall in next year's operating budget.

When the bad news broke, the Torontoist.com, compared the inflation of the TTC's 21 fare hikes in the past 30 years against the price of gasoline and against the inflation rate.

Join Kevin Libin for a live chat about the future of transit on Tuesday, Dec. 8, at 11a.m. ET

Consistently, the analysis found, TTC fares had risen faster than inflation, and far faster than the price of gas. Between 1980 and 2010, the cash fare, adjusted for inflation, soared more than 80% and token prices are up 50%. The price of a litre of unleaded gas? Up about 30%, without inflation. As for wage increases, Statistics Canada reported last year that the median full-time, full-year salary of average Canadians has hardly increased at all since 1980.

Although it is charging more than ever, getting heftier federal, provincial and municipal subsidies than at any time in its history, although fuelling a car is pricier; and though its customer base has never been larger or keener to reduce its carbon footprint, the TTC, the largest system in the country, is struggling as much as ever to stem its losses. If this is the future of public transit, it does not look bright.

As other major systems across the continent strain in similar circumstances, the strategy of public transit system boosters has been to promote the service as an environmental necessity. In the name of Mother Nature, North American transit systems have received billions in subsidies in recent years - even though they were never developed for environmental purposes in the first place.

If the goal is to reduce carbon dioxide emissions, air pollution and gas consumption, and maximize the

environmental impact of sustainability spending, we may be better off without publicly funding transit at all.

"Subsidized transit is not sustainable by definition," says Wendell Cox, a transport policy consultant in St. Louis, and former L.A. County Transportation commissioner. "The potential of public transit has been so overblown it's almost scandalous."

It's not that environmentally minded transit promoters are being dishonest when they argue that city buses are more efficient than private cars: It's that they're talking about a fictional world where far more people ride buses. Mass transit vehicles use up roughly the same energy whether they are full or empty, and for much of the time, they're more empty than full.

For the bulk of the day, and on quieter routes, the average city bus usually undoes whatever efficiencies are gained during the few hours a day, on the few routes, where transit is at its peak.

Last year, policy analyst Randal O'Toole ran the numbers for the CATO Institute, where he is a senior fellow, comparing mass transit vehicles to private vehicles, ranking each based on how much energy they consume and how much CO2 they emit. The average motorized city bus, he reports, burns 27% more energy per mile than a private car and emits 31% more pounds of CO2. The U.S. Bureau of Transportation Statistics confirms that the average city bus requires 20% more energy per passenger than the average car.

"Unfortunately, right now the state of the art is that you're generally better off with private automobiles when you're talking about energy utilization. About the only way that transit can be competitive for energy or for environmental quality is if the transit lines gets an incredible amount of use, far higher than is now normally the case," says Tom Rubin, a transit policy consultant in California, and former chief financial officer of the Los Angeles County Metropolitan Transportation Authority. But crowded systems are a turn-off for riders, he says, so more passengers means even more buses and rail cars. "It's almost impossible to make transit more attractive without spending a huge amount of money."

The bus may be the most inefficient part of any major city's transit network, but they're the most vital part. Wider use of subways and light rail relies utterly on a feeder system of buses, says Michael Roschlau, president of the Canadian Urban Transit Association. "You can't just run [Calgary's] C-Train by itself and expect everyone to drive to the stations," he says. "Same thing for the subway in Toronto or Skytrain in Vancouver."

Without buses to carry them from their neighbourhood to the train stations, even fewer citizens would ride the trains, making trains, in turn, less efficient per passenger. Already, when trains, subways and streetcars are combined, the average public transit system is still no more efficient that private cars, according to the CATO study. All transit together does emit less CO2 than passenger cars carrying the same number of people the same distance (about 13% less) but even that gap is disappearing -- fast.

The U.S. Bureau of Transportation Statistics data shows that while transit's energy efficiency has worsened in recent decades-transit buses today consume 4,235 per passenger mile, or about 50% more energy than in 1980 -- the trend in cars has been the opposite direction: Today's cars are already about 20% more efficient than they were 25 years ago, down from 4,348 BTUs per passenger mile in 1980 to 3,525 in 2006.

The environmental case for public transit is falling just as fast, now that hybrid cars are achieving mass market status, with 65 models set to hit North American roads next year, Chevrolet planning to launch its electric Volt by 2011 and manufacturers rolling out super-high efficiency vehicles. In the next few years especially, the average energy consumption of passenger vehicles, and their emission levels, will only improve, with projections by the International Council on Clean Transportation showing the average auto could beat all public transit modes for efficiency and CO2 within the next five years.

"At this point, a Toyota Prius is less greenhouse-intensive than New York City Transit," Mr. Cox says. "Whatever advantage that transit has at the moment is going away very quickly."

Once eco-conscious urbanites realize the bus is worse for the planet than cars, they'll have little reason to keep riding, making transit's comparative per-passenger environmental footprint look even worse. And while transit system operators talk of "greening" their fleet, the fact is they face substantial limits. Whatever green gains transit can make, automobiles can probably do better, Mr. Rubin says.

When the federal government, the B.C. government and BC Transit revealed plans to run 20 hydrogen-powered buses in Whistler, B.C., in February for the Olympics, even the hard-green David Suzuki Foundation balked at the preposterous $2-million-per-bus price tag -- four times the price of a standard diesel -- arguing that the money would have been better spent on traditional transit initiatives, which "are on life support as far as the financial needs go," Ian Bruce, the group's climate-change campaigner, said.

He's surely right about the pointlessness of what will amount to a four-year, $90-million showpiece of technology not even remotely realistic for actual, financially strapped public transit systems.

And more money for diesel-powered buses may be hardly more worthwhile: The fact is that despite best efforts of transit planners and funding governments, and surveys showing a public keen on environmentalism, most commuters simply will not, or cannot, ride.

Last year's census data confirmed that the vast majority of Canadians have little use for transit. Just 216,000 more people rode at least once than did in 2001, a half-a-percentage increase, but that's actually a decrease relative to the 5.4% population growth over the same period. At the same time, Statistics Canada shows that operating costs for Canadian transit system has ballooned, up 30% from $3.7-billion in 2003 to $4.8-billion in 2007. In the United States, public transit's market share for travel has fallen by a third since 1980, from 1.5% to 1% in 2005. If anything were to get people out of their cars to stand at a bus stop, it would be the severe pain of soaring gas prices. But even as fuel in the United States. approached the unseen price of $4 a gallon in 2008, public transit ridership rose a mere 3.3%.

Transit boosters insist that we must go further, and redesign our cities to support transit systems. "Our cities continue to approve the suburban sorts of development that are very difficult to serve using public transit," Stephen Hazell, executive director of the Sierra Club of Canada, told reporters upon release of last year's disappointing ridership data. But the thousands of delivery trucks, taxi drivers, emergency vehicles, service trucks, car-bound workers and buses mean even high-density cities will keep needing highways, ring roads, bridges and flyovers. Meanwhile the massive cost of overhauling cities is just more billions to address an automobile environmental

problem that is already on the way to resolving itself -- money that might be better, and more effectively deployed toward other earth-friendly measures, such as reducing traffic congestion.

A congestion charge toll implemented in Stockholm in 2007, for instance, reduced CO2 emissions in that city by roughly 16% last year, cut traffic by 18%, and, because it exempts low-emissions vehicles, led to a tripling of purchases of so-called green cars. Best of all, it sustains itself.

More roads, and more efficient roads, still won't address public transit's original, non-environmental purpose: providing mobility for citizens who lack their own. But where public transit is absent, or impractical, solutions for the small minority totally lacking other means have readily sprung up. Ridesharing applications for smart phones -- users enter their location and desired destination and a cost-conscious carpooler responds -- are already in wide use, Mr. Rubin says. Self-sustaining, small-scale private jitney systems have successfully operated for years in Atlantic City and Puerto Rico (all North America's early public transit systems were privately operated until they were nationalized). And with billions freed up from public transit funds, it appears entirely feasible to simply offer subsidized Prius taxis, or even car subsidies, to the small portion of the public entirely reliant on public mobility. A study last year by HDR Decision Economics, commissioned by the Canadian Urban Transit Association, found that Canada's public systems will need $78-billion more in infrastructure spending and $3.6-billion in annual subsidies to reach optimum capacity. For that kind of money, Canadian governments could, if they wanted, hand out $16,000 car or taxi allowances to every single Canadian who rides transit even casually, and still have $50-billion left over at the end of the decade. That plan wouldn't please the public unions and other transit-reliant lobbies pressing for more green-related transit funding. But it would relieve Canadians from having to perpetually prop up a system that's increasingly unsustainable -- financially and environmentally.

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