

# EDMONTON TO CALGARY IN AN HOUR

How to make an Alberta high-speed train a reality

By EVAN OSENTON

**E**ITHER WAY, THE THREE-HOUR DRIVE between Edmonton and Calgary on the QEII highway has the same itinerary: nice landscape, cows, trees, pumpjack, anti-Ottawa billboard, creeping boredom, leg cramp, Donut Mill raspberry bismarck, cows, fence, pickup truck passing you at 160 km/h, horse, trees, jackknifed semi-trailer in the ditch, pumpjack, cows, full-on boredom, RV storage, airport, destination. If it's winter, add whiteouts, black ice, more ditched 18-wheelers and another hour to your drive.

You can fly. People travelling by air between Alberta's two biggest cities spend up to three hours (more if airport security is backed up) and a lot more money (including parking, cab, bus or car rental cost) to make the same trip. Short-haul flights also create a lot of carbon emissions. And there's no Donut Mill.

Must these be our only options? Maybe not. In summer 2021 a partnership called Prairie Link announced its intention to build a 400 km/h high-speed rail line connecting Edmonton, Red Deer and Calgary, with a total travel time of under 90 minutes—what it called one of “the largest and most defining nation-building transportation projects in Alberta's history.” Not to be outdone, that same summer a Toronto-based company called TransPod announced the results of its feasibility study for an “ultra-high-speed” Alberta hyperloop—a technology Elon Musk calls “a cross between a Concorde, a railgun and an air hockey table.” This pneumatic tube would blast passenger or cargo pods up and down the QEII corridor at speeds of over 600 km/h, cutting the travel time to a blink-and-you-miss-it 45 minutes. Both proposals promise to make Edmonton–Calgary travel not only faster but cleaner and safer too.

It might be easy to dismiss both ideas. But growing traffic volumes are only going to make the drive worse. Keeping global warming to under 2°C demands that we rapidly decarbonize travel. Both high-

TRANSPOD INC.

speed projects are officially under review by the province. And the companies behind Prairie Link are no starry-eyed start-ups: EllisDon and AECOM have between them built some \$20-billion worth of infrastructure in Alberta over the past 10 years. Hyperloop technology is admittedly more Jetsonian, although TransPod is building a three-kilometre steel test track in the French countryside north of Limoges (and Richard Branson sent two employees through his Nevada-desert-based hyperloop prototype way back in 2020).

Let's say, for the sake of argument, that both high-speed proposals for Alberta are technologically viable and would meaningfully lower CO<sub>2</sub> emissions. Let's also just agree that either bullet train or people-blasting vacuum tube would mark a big improvement over a three-or-more-hour slog on the QEII. Let's also accept as true that either project would cost a lot to build, and that the not-insignificant concerns of rural Albertans—about land expropriation, noise, road crossings, effects on wildlife—would first need to be sincerely and thoroughly addressed.

It's not hard to make a case that faster, cleaner, safer transportation between Edmonton and Calgary would be in the public interest—indeed, it's been made many times before. But our government has rejected a fast train in every instance, mainly because of funding concerns. If Albertans want a high-speed future, then, we should consider a different approach.

## TransPod and Prairie Link want to build high-speed projects in Alberta. Both proposals are being reviewed by the province.

**A** YEARNING TO SHRINK THE TRAVEL time between Alberta's largest cities is a desire older than the province itself. A passenger rail line was hammered into the prairie between Calgary and Strathcona by 1891 (the High Level Bridge wouldn't be built until 1913). A one-way jaunt on the Calgary & Edmonton Railway took 12 hours. Branch lines were added, and by 1914 you could even do Edmonton-Calgary on a rival to the C&ER. The trips only got faster: 6–7 hours in 1930, five hours on "The Chinook" by 1936, a blurry three and a half on CP's Dayliner by 1955. By 1969 some 80,000 Albertans were rocketing between Calgary and Edmonton by rail every year.

But these trains were doomed. The discovery of oil at Leduc begat the rise of cheap gasoline, two cars in every suburban driveway, the twinning of Highway 2 (later renamed the QEII), the growth of commercial flights. The 1970s began a vicious cycle for local rail: ridership shrank, companies cut service, ridership shrank, the feds mandated minimum frequencies (while rail companies demolished stations and Peter Lougheed bought Albertans an airline), ridership shrank, the Crown-owned VIA Rail took over service, ridership shrank. A 1983

Dayliner crash near Carstairs killed five people and prompted a federal inquiry. The last Edmonton-Calgary passenger train ran September 6, 1985.

Train travel's decline wasn't universal, though. By now, high-speed rail in other countries had begun in earnest—Japan's 200km/h *Shinkansen* (or bullet train) opened in 1964, France's *Trains à grande vitesse* in 1981, Germany's Inter-City Express in 1991. And even as our province was shunting its disused passenger cars onto sidings, some Albertans were thinking ahead.

Numerous Alberta-government-commissioned reports published since the outset of the Lougheed era have called for the province to build high-speed rail. A mid-1970s federal-provincial study declared that a high-speed link between Calgary and Edmonton "could be useful and feasible by the late 1980s." A 1985 Alberta Economic Development and Trade study "clearly demonstrate[d]" high-speed rail was technically feasible and economically viable and "would contribute to a revival of the province's engineering and construction industries." A 2004 study commissioned by the province foresaw "significant benefits to the Calgary-Edmonton corridor and Alberta as a whole, including between \$3.7-billion and \$6.1-billion in benefits to users, in jobs and employment income and additional tax revenues" and declared "sufficient demand exists today to support high-speed rail." A 2008 study for Alberta Infrastructure by Transportation Economics and Management Systems Inc. was similarly enthusiastic.

The "for" arguments have only solidified. Alberta's population has almost tripled since 1970. The QEII region continues to be among the densest and fastest growing in Canada. The province expects 2.1 million more residents by 2046, with 80 per cent of us expected to live in the Edmonton-Red Deer-Calgary corridor (up from 77 per cent today). Some of the problems that reports have acknowledged—the competition to local high-speed rail offered by one of North America's busiest short-haul flight routes and by frequent buses—have all but evaporated. Edmonton shut its downtown airport in 2013. Greyhound dropped its western Canadian routes in 2018.

And if the QEII is busy today, imagine the future. Take the stretch just north of Nisku, for example. On an average day in 1963 some 7,000 cars and trucks would rumble by. By 1974 there were 20,000; by 1983, 30,000. Today some 95,000 vehicles roll over that three-lane stretch of patchy blacktop every day. If, as experts project, traffic volumes on the QEII triple by 2050, we'll need up to eight lanes in some places and wider overpasses along the length of the highway—billions of dollars, in other words, just to preserve a bad status quo.

THE NEXT TIME YOU'RE STUCK IN QEII GRIDLOCK, trying to pull far enough onto the snowy shoulder to gauge how far ahead those flashing RCMP lights are and just where this parade of idling trucks might end, think of Ted Morton. It would be unfair to blame the former Progressive Conservative MLA and finance minister for decades of

inaction on high-speed rail by successive Alberta governments, but he does represent a mindset that has derailed such proposals and thus serves as a kind of anti-fast-trains avatar.

The 2008 report on high-speed rail's benefits, for which Albertans had been surveyed about various trip times and ticket costs, projected that an Edmonton-Red Deer-Calgary network could by 2021 be running trains at up to 300 km/h, carrying 5.8 million passengers a year and replacing five million trips up and down the QEII. The report suggested that high gas prices could boost that to over eight million trips, thus pulling even more vehicles off the road (and this was before Canada had a carbon tax). The slowest of four possible trains—a plodding 125 km/h—would still supplant 17 per cent of YEG-YYC flights, while the fastest would make flights virtually pointless.

And yet when these prospects were made public in mid-2009, Morton told an *Edmonton Journal* reporter he was "very cool on the idea."

Albertans said they'd take a fast train. So why would Morton (and colleagues) publicly pooh-poo the notion? At the time, the price of oil had just crashed, and with it, predictably, Alberta's finances. Government spending "had been like an all-you-can-eat buffet," Morton would declare when he was handed the Finance portfolio. Alberta's conservative leadership has long reacted to oil price drops by cutting public services.

Morton, a founding member of the "Calgary School" of economics, wasn't only opposed to government spending generally but in particular to what he called "boondoggles"—spending on infrastructure or commercial ventures by government, either alone or in partnership with the private sector, in which money is lost to cost overruns. (Notably, the word "boondoggle" spikes in searches of Alberta Hansard from early 2006 to early 2009, Morton's first three years in cabinet.) Fast trains mean a lot of government spending. Indeed, the 2004 report had presented two financing scenarios for Alberta high-speed rail: a wholly public option and a joint public-private one. For either, capital costs—for land acquisition, design, engineering, infrastructure, rolling stock—were pegged at \$1.7-billion to \$3.4-billion, or \$2.5-billion to \$5-billion in today's dollars.

The 2004 report anticipated public benefits. Five years of construction meant 25,500 to 52,000 person-years of employment and up to \$1.95-billion in related income. Fares plus additional tax revenues were projected at up to \$565-million over 30 years to the province, plus up to \$1.2-billion to the feds. But this math didn't move a cabinet that had deep misgivings about "government picking winners and losers."

Morton and Co. had a point. After his political career,



A Prairie Link rendering. At least four Alberta-government-commissioned reports since the 1970s have outlined the viability of local high-speed rail.

Morton returned to academia at the University of Calgary, and in 2015 published two damning studies on PC government "boondoggles": March 2015's "The Siren Song of Economic Diversification: Alberta's Legacy of Loss" (with Meredith McDonald), and April 2015's "The North West Sturgeon Upgrader: Good Money After Bad?" The former calculates that Lougheed-Getty-era "forced-growth" projects, funded in large part by the province and projected to rain benefits on citizens, in fact cost the public \$2.3-billion. The report's "dirty dozen" included a cellphone manufacturer (NovaTel: a loss of \$614-million), a waste treatment plant in Swan Hills (loss: \$440-million) and a magnesium smelter near High River (loss: \$164-million).

In the Sturgeon study, Morton wrote: "What began as a low-risk, low-cost project to encourage domestic bitumen upgrading has morphed into a multi-billion-dollar boondoggle with high risks for Alberta taxpayers." University of Alberta economist Andrew Leach in 2020 affirmed that the upgrader has now cost taxpayers over \$2.5-billion, writing "If you were mad about... government dollars going





The QEII, 2021. If traffic volumes on the highway triple by 2050, as experts predict, we'll need up to eight lanes in some places and wider overpasses along the length of the highway—billions of dollars, in other words, just to preserve a bad status quo.

to bail out Bombardier after its C-Series debacle, the details of the Bitumen Boondoggle will make your head explode.”

So it's not hard to imagine why in 2009 Alberta's high-speed dreams failed yet again to leave the station.

WHICH BRINGS US TO TODAY'S PROPOSALS and why I suspect that our current provincial leaders will once again be cool to the prospects of government-backed high-speed rail.

Officially, neither project expects even one dollar of public money. TransPod says its hyperloop project (in addition to creating “up to 140,000 jobs and add[ing] \$19-billion to the region's GDP during construction”) will come “at no cost to the taxpayer.” Prairie Link is more circumspect, saying only that its \$9-billion project is “solely a private sector initiative.”

This is wishful thinking. Virtually every high-speed rail network from France to Morocco to China is publicly owned and operated. Even if privately financed, projects this huge require government time, expertise and money at every step of the way, from ensuring public concerns are addressed to rerouting roads and regulating safety. At least two US jurisdictions are trying to break the mould, but the five-year legal battles of Texas Central and the tragedy of Florida's

Brightline should serve as cautionary tales. The latter is the first privately owned high-speed rail network in the US, and it has the worst safety record of that country's 821 railroads.

Even if Jason Kenney's UCP government decides it's happy to let private enterprise wade into an area of long-standing public-sector responsibility, it might deem it too risky to allow a company to start an infrastructure project that's “too big to fail.” If a builder goes bankrupt before finishing construction on a public school, that's one thing. But if, say, TransPod pours thousands of concrete pillars for its pneumatic tube in the QEII median from Calgary to as far as Red Deer, then declares it has run out of money, our elected leaders may feel compelled to bail out or take on responsibility for the massive project, at whatever cost—a situation reminiscent of the Sturgeon upgrader boondoggle.

Meanwhile the UCP government has committed to balancing the province's budget, a sober pledge that doesn't jibe with commissioning “the most defining nation-building transportation project in Alberta's history.” Our premier is perhaps more boondoggle-averse following the \$1.3-billion Keystone XL fiasco, when he backed a private oil pipeline that was subsequently cancelled. And Kenney himself isn't exactly a public transport nut; he famously stalled on



**ARCHIVE:**  
The debate over high-speed rail, April 2010  
[albertaviews.ca/archive](http://albertaviews.ca/archive)

granting funds to Calgary's and Edmonton's LRT expansions that had already been committed by the Notley government.

It's anyone's guess what the advisers to Alberta's government will conclude about Prairie Link's or TransPod's proposals, or how much, if any, public money would eventually be required. Alberta Transportation minister Rajan Sawhney said in an email only that she “looks forward to hearing more about the feasibility of the two proposed projects” and that her government “hasn't committed any funding.” The government's P3 proposal website says that Prairie Link's fast-train idea will be evaluated by early 2022 and that “Indigenous engagement has already commenced and an advisory committee has been established.” No further details are given for either project.

An Alberta Association of Municipal Districts and Counties study in 2010 noted that previous reports on high-speed rail focused on the implications for city dwellers, while “impacts on rural communities have not been adequately addressed.” Rural residents could face more noise and fewer roads, needing to tow heavy farm equipment longer distances to newer, more dangerous rail crossings. Battles over land expropriation could bog down Alberta high-speed rail. Rural municipalities would face higher operating costs on bridges and new access roads.

No political constituency is more important to the UCP's re-election prospects in 2023 than rural Alberta. Rural misgivings—even those that might have been overcome through authentic public engagement (say, by a company's pledge to build only raised crossings over new tracks)—could derail a high-speed train's chances in Alberta once more.

**A** REASONABLE ALBERTAN, then, probably shouldn't get their hopes up for replacing the long, slow and dreary (when it's not terrifying) drive on the QEII with a leisurely ride on Prairie Link's landscape-blurring bullet train or a hallucinogenic rip on TransPod's hyperloop—as long as the spectres of boondoggles and bailouts haunt the halls of our legislature. But there is a way to get high-speed transportation in Alberta, at minimal cost and maximum benefit to the public. It involves expanding both our definition of the public interest and our imagination when it comes to how we might pay for a project like this.

By all means let's commission a new report on the pros and cons and up-to-date costs of a high-speed train. But we should consider not only the price of high-speed infrastructure but the price of the status quo. What is the cost to our government of endlessly filling potholes and cracks and repainting lines on the QEII, adding lanes and overpasses, plowing and sanding the frozen highway, employing people to retrieve roadkill from its ditches, employing police to enforce speed limits from land and air, deploying ambulances and paramedics to crash sites, employing ER nurses and surgeons to repair drivers' shattered bodies? Then there are airport runways and terminals to expand, baggage handlers and screeners to hire, and so on and so forth.

What public benefits would come from *shrinking* QEII traffic? What if Alberta saw even a few hundred fewer collisions on the QEII every year? How would local commerce benefit from less-crowded runways and highways? And what benefits—individual, economic and societal—would come from freeing up millions of hours of Albertans' time?

## High-speed rail across the world is publicly owned and operated. Such projects require government time, expertise and money.

We might also think more carefully about the notion of boondoggles. In each of Morton's examples, the government of Alberta was spending on commercial ventures, largely in aid of resource extraction. One year magnesium is in high demand; the next, China has opened a dozen new mines and flooded the market. But high-speed rail between Edmonton, Red Deer and Calgary should be viewed as an extension of existing public transportation, the need for which never goes out of fashion. And public transit across the world is typically not expected to post a profit anyway, since it delivers immeasurable economic and societal benefits. Imagine the gridlock on Calgary's or Edmonton's roads if we had no buses or LRT.

But the climate context has changed too. The world's leaders at COP26 in Glasgow declared that we have less than a decade to significantly reduce CO<sub>2</sub> emissions. Transportation is one of the most polluting sectors. Alberta levies a carbon tax on the province's largest industrial emitters, ostensibly to incentivize them to emit less carbon. The tax collected \$548-million in 2020 alone and more than \$2.6-billion since 2007. Under the UCP government these revenues are frequently handed over to industrial projects that will produce negligible CO<sub>2</sub> reductions. Worse, often these projects are meant to help industry extract *more* oil overall—and many of the companies being given the money are the same ones that paid the tax in the first place. Under such a circular scheme, what incentive do companies have to reduce emissions?

The Kenney government in 2019 relinquished control over Alberta's consumer carbon tax, which generated \$1.3-billion in 2018–2019, largely from fuel sales. The federal government now collects this revenue, only to reimburse 90 per cent of it back to citizens. The bottom line: In 2020/21 the provincial and federal governments combined collected almost \$2-billion from Albertans in carbon tax revenue, which was supposed to help reduce CO<sub>2</sub> pollution but was instead squandered on tiny, hopeful, maybe-but-probably-not emissions reductions at some time in the distant future, or handed back to citizens after perhaps, hopefully, ideally inducing minuscule changes to our polluting behaviour—such as driving just a bit more slowly on the QEII, maybe.

Were Albertans to demand it, some or all of this money

## WHERE A HIGH-SPEED TRAIN COULD GO

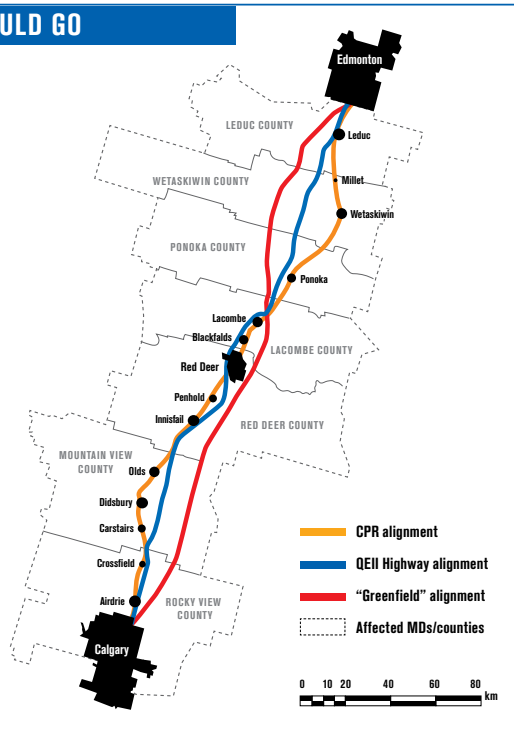
**RECENT REPORTS PROPOSE A 300-KM NETWORK** between each downtown, with additional stations at Edmonton's airport, at Red Deer and at Calgary's airport. The province owns land in both downtowns that could be used for terminus stations (when asked in March, the Minister of Transportation declined to provide the exact locations).

**CPR alignment** A high-speed train could use the existing Canadian Pacific Rail alignment, even sharing tracks with freight trains. This would mean a much slower passenger service, but lower construction costs—and service could start sooner.

**QEII highway alignment** A hyperloop entails an elevated tube that could follow the QEII, even using the median. This “track” would have no level crossings and allow for very fast travel times, but its construction could disrupt QEII traffic. A hyperloop would also cost much more than a high-speed train.

**“Greenfield” alignment** Either mode could use a dedicated high-speed route. This would mean faster travel and more riders, but also higher costs for land procurement. This route could cut off rural roads too. —AV

SOURCES: CPCS REPORT (2010); TEMS REPORT (2008)



could be allocated to building a high-speed train network instead. We're already collecting these revenues, to little end, and the CO<sub>2</sub>-reducing benefits of fast trains are well documented. Given Prairie Link's estimated \$9-billion cost to build Edmonton-Red Deer-Calgary high-speed rail, our government could well afford to build the network itself, own it, and operate it for the benefit of all citizens, who will have paid for its construction solely through their carbon sins—and industry's.

Public ownership would mean lower capital financing costs—and no risk of private companies cutting corners or needing public bailouts. Once up and running, the network might well be self-sufficient, paying for itself through fares. Or we might even choose for Alberta high-speed rail to be subsidized by ongoing carbon tax revenues (which are slated to rise annually, at least federally, until 2030). This would have the added benefit of driving up ridership, further reducing carbon pollution as well as traffic on the QEII with every new passenger. If there were ever such a thing as the opposite of a “boondoggle,” this might be it.

**P**ICTURE ON YOUR NEXT TRIP BETWEEN Edmonton and Calgary a very different itinerary. You're sitting in a comfortable high-speed train seat (or perhaps a gleaming hyperloop pod), reading a magazine or listening to an audiobook, glancing out the window from time to time as the odd cow, tree, fence or pumpjack whizzes by... and was that the Donut Mill...? The trip is costing you much less than it would have to drive. You're polluting much less too. And your train, thanks to a careful public consultation and design process that avoided even one level crossing, has an unimpeachable safety record. You arrive at your destination refreshed instead of weary, and in a mere 90 minutes (or maybe 45). You have time to spare before your work meeting or family get-together or hospital appointment.

All it would take for this high-speed vision to become reality is for more citizens and our government to have a little imagination. ■

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