

Critique of Evaluation of the E&N Railway Corridor study

A response by Brendan B. Read

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General

The Ministry of Transportation and Infrastructure (MT&I) report provides an overall excellent analysis of markets, with a few errors and a realistic appraisal of existing and future rail share. What it fails to perform—and this is critical but common mistake in transportation reports—is to provide a total (direct and indirect) cost comparison between rail, road and marine options. By not doing so results of the MT&I study appears to be unfairly weighted against rail.

There has long been an assumption that “highway users pay their own way”. There is mounting evidence that they do not, and especially in difficult terrain like on Vancouver Island. The wear-and-tear that trucks incur on road surfaces—thousands of times greater than cars according to the U.S. Federal Highway Administration—escalates dramatically on curves and grades. Accidents and their severity also increase in such conditions along with the costs of responding to them along with the costs of delaying other users. Highway users, especially trucks, do not pay local governments for the wear-and-tear on municipal streets.

Rail systems have had to pay their own way on keeping and fixing up their rights-of-way. They have also had to fund derailment and repair costs. In contrast highway users download much if not all of those costs to taxpayers. That distorts transportation economics, pricetags and demand. Such marketplace twisting is arguably to a large share responsible for the decline in the rail mode over the past 70 to 80 years.

Tourism

The tourism section is generally dead-on but it appears to have understated the economic benefits? Here's why: to make a full day trip on the E&N Dayliner requires a visitor to spend 2 extra nights in Victoria. The presence of this attraction therefore gives an additional incentive to stay longer or make an additional trip. It was this knowledge that led to the calculation of a benefit of over \$3 million/year in a report I prepared in

Moreover no mode of transportation has been assessed the indirect costs they incur. These include healthcare from illnesses such as asthma, police/fire/ambulance from accidents that also contribute to health costs which in Canada. Transportation typically accounts for 1/3rd of emissions. The American Public Health Association recently released a report “The Hidden Health Costs of Transportation,” revealed that the air quality toll from cars in the U.S. range from \$50 billion to \$80 billion per year, overshadowed by the costs of accidents at \$180 billion annually. In 2008 the Canadian Medical Association issued a report: “No Breathing Room: National Illness Costs of Air Pollution” that calculated the economic costs of air pollution will have accumulated to over \$250 billion by 2031. The human cost is steeper still. By 2031, almost 90,000 Canadians will have died from the acute short-term effects of air pollution. Translate the numbers for Vancouver Island now and in 2026 and what is emerging is a grim picture.

Then there is land use. When you, to cite Canadian folksinger/songwriter Joni Mitchell's words “pave paradise and put up a parking lot” you incur ongoing costs such as damaging water quality—a major issue what with long hot summers, milder winters (encouraged by global warming whose prime perpetrators include auto/truck dependency) and removal of atmosphere-cleansing greenspace. The David Suzuki Foundation put the price as high as \$30,000 per hectare/year for wetlands.

2002 for the SaveRail Coalition.

I strongly agree with the assessments that the Nanaimo-Alberni portion and the Duncan, Chemainus and the wineries have the most value as attractors. The whole of the Victoria-Courtenay section isn't exactly thrilling. Yet did the report's researchers explore also the possibility of excursion boat partnerships e.g. Chemainus or Ladysmith to Nanaimo (and

Yet these costs are not factored either for new homes, commercial/ industrial or for transportation assets such as new or widened highways: when they should be, to permit fair and accurate comparison with alternatives.

(Todd Litman of the Victoria Transport Policy Institute is the best source of the latest, accurate, and citable information of indirect as well as direct transportation costs)

(One can argue that if truckers had to pay for the same costs out of pocket as the rail operators then it would have been unlikely that NorskeSkog would have shifted its traffic to trucks from rail that it had announced in 2001, and which precipitating the E&N abandonment issue. I would like to see a full cost [direct and indirect] analysis between truck and rail for the proposed new mine.)

The report did analyze the traffic and environmental impacts of discontinuing the E&N. Yet it did not analyze the benefits of shifting road traffic to rail including granularizing the higher impacts and benefits of not having heavy coal-carrying and other trucks on highways.

In view of this key omission I urge a supplemental report performed that analyzes and applies all direct and indirect costs for all modes, in freight and passenger, with 2009 and 2026 baselines, and look at the net gains if any of shifting demand to rail as compared with the costs of rebuilding rail to attract and retain this traffic. This is similar to urban transit studies comparing rapid transit and commuter rail with highway expansion options.

Departure Bay), Butchart's Gardens and Swartz Bay (for connections back to Vancouver)? This could be a very attractive option.

The report mentioned Nanaimo for cruise ships. This is an excellent point. Yet isn't a much bigger market Vancouver, currently via BC Ferries and by air? The tracks at Nanaimo (like at Skagway for the White Pass & Yukon) go to the waterfront; also E&N stops only a short shuttle ride

away from Departure Bay. So why not focus the tourist train service on Nanaimo, serving Chemainus and Duncan to Victoria as well as to Alberni?

It is a pity that HarbourLynx died primarily because of unreliable equipment and resources but I have read there is renewed interest in a Nanaimo-Vancouver commuter ferry whose economic case can be reinforced with direct tourist rail links to Victoria and Alberni. There is a new generation of low-wake fast

ferries now entering service in Washington State that could be used.

Could the Ministry initiate and support a study of fast-ferries both for commuter travel as well as tourist feeders to the E&N? It is conceivable that a train operating from Duncan to Nanaimo and feeding a fast-ferry connection to Vancouver inbound then running back to Duncan outbound on a return trip in the morning, and then back in the afternoon could be viable.

There is also the possibility of

connections via Nanaimo Airport as it is located adjacent to the E&N. Shouldn't the report have taken a look at that possibility and how much revenue and ridership that could be generated as it would enable direct connections especially now with the Canada Line serving YVR?

In view of the above there needs to be a second look at tourism, with the focus on Vancouver and on excursion boat supplements and at the net benefits.

Commuter Rail

The MT&I report follow the BC Transit VRRTP reports recommending the Highway 1 corridor for rapid transit. Yet in doing in some both this paper and the VRRTP overlooks a serious viable mode choice alternative that is being implemented in Europe and the USA, and by not properly examining could result in an unsatisfactory commuter rail or rapid transit network.

The mode choice is 'TramTrain' a practice and technology where passenger rail vehicles operate on conventional railway tracks and in trackage laid in-street like LRT. It is therefore a hybrid commuter rail/rapid transit. TramTrain both electric and diesel is becoming popular in Europe and gradually in the USA as it overcomes the weakness of commuter rail i.e. requiring change of mode to reach central destination while using existing tracks, thereby reducing total costs compared with traditional separate rapid transit lines. Examples include Karlsruhe (electric), Nordhausen (dual-mode diesel/electric), Saarbrücken (electric), Zwickau (diesel), Austin, Texas (diesel) and Camden-Trenton, New Jersey (diesel).

TramTrain is then a paradigm shifter as it overcomes the limitations of both commuter rail and rapid transit while enabling the proven ability of rail to attract more customers including personal discretionary ones that make up the bulk of the market than bus rapid transit, and generate transit-oriented development that buses have not because they are "here today/gone tomorrow".

Diesel TramTrain could permit imaginative routing options in the West Shore to serve Colwood and then rejoin the E&N right of way. It could rather than terminate at Douglas/Pandora (or Douglas/Yates) to reach the Legislative Precinct that

would significantly boost ridership and revenue, shared with a downtown streetcar line first proposed by the Greater Victoria Electric Railway Society (GVERS) in 1986 and recommended in the Victoria Accord; there are new wireless trams developed by Bombardier that are entering service in Germany.

TramTrain equipment (cars can be specified to include toilets) can operate to Duncan, Nanaimo and Courtenay. The firm Stadler has built the next generation of electric and diesel TramTrain cars that meet European crashworthiness standards that are now in service in Austin, Texas as well as in Europe.

The omission of the TramTrain option from both the BC Transit and MT&I studies is a serious flaw. TramTrains have been in existence for several years. Ironically the 1996 Lea study for BC Transit analyzing the E&N option had a photo of a Siemens RegioSprinter diesel TramTrain car on the front—the same vehicle used in Zwickau.

Moreover, operating costs are affected by labour rules. TramTrain can be one-person-operated like LRT; conventional commuter rail requires two people.

TramTrain would also permit sharing a new 'Blue Bridge' with a streetcar line to VicWest (also raised by the GVERS in 1986) on a double-track span. While such service may not be in the plans now, it is immensely cheaper to make such provision now than adding them later. Longer

The Commuter Rail paper has other flaws:

- It does not assess VicWest specifically the Railyards as an employment zone nor as a residential market; TramTrain can stop there as well as downtown
- It follows the same questionable

analyses recommending rapid transit on divided highway corridors. Where transit-oriented development has occurred has not been on them but rather off them, where the presence of fast rail transit in areas with limited high quality road access i.e. Esquimalt, VicWest can make a significantly qualitatively improved travel experience. Witness the difference between the impacts of the Millennium and Expo Lines in Metro Vancouver

- Also every 15 minute frequency is the feasible standard on a single-track line with passing sidings. This can be accommodated with TramTrain
- Lastly there needs to be a discussion on local tourism markets for commuter rail e.g. bike-and-ride to Fort Rodd Hill and Goldstream Park, which can be significant

There needs to be followup report of TramTrain and apply it across the entirety of the Victoria-West Shore mass transit market as it is a technology game-changer, requiring a second look at previous modes and routes and assumptions with them.

Both studies: this one and the VRRTP and their conclusions will remain flawed—and opportunities missed for low-cost affordable and attractive transit service—unless the TramTrain option is properly examined.

For by no means is the VRRTP report set in stone. Anyone who has observed the history of transit especially in the Lower Mainland over the past 30-35 years will have seen many studies and recommendations written only to be radically changed or ignored and new choices picked and built witness SkyTrain for LRT, Cambie for Arbutus, deprioritizing the Northeast Sector for Richmond/YVR et al.