

Standing Committee on
Alberta's Economic Future

**The Feasibility of Establishing
a High-Speed Rail Transit
System in Alberta**

Twenty-Eighth Legislature
Second Session
May 2014



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OF THE LEGISLATIVE ASSEMBLY

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STANDING COMMITTEE ON ALBERTA'S ECONOMIC FUTURE

May 2014

**To the Honourable Gene Zwozdesky
Speaker of the Legislative Assembly
of the Province of Alberta**

I have the honour of submitting, on behalf of the Standing Committee on Alberta's Economic Future, its final report pursuant to Standing Order 52.07(4) on **The Feasibility of Establishing a High-Speed Rail Transit System in Alberta.**

Sincerely,

(original signed by)

Moe Amery, MLA
Chair, Standing Committee
on Alberta's Economic Future

c. Dr. David McNeil
Clerk of the Legislative Assembly

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28th Legislature, Second Session

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§ Substitution for Rick Strankman, January 29, 2014, February 4, 2014, February 5, 2014, February 24, 2014, February 25, 2014, and February 26, 2014

** Substitution for Wayne Cao, February 24, 2014

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§§ Substitution for Rod Fox as Deputy Chair, May 6, 2014

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1.0 INTRODUCTION

The Standing Committee on Alberta's Economic Future is one of three legislative policy committees established by the Legislative Assembly of Alberta. Standing Order 52.01(1)(b) provides that the Committee's mandate is related to the areas of Agriculture and Rural Development, International and Intergovernmental Relations, Innovation and Advanced Education, Tourism, Parks and Recreation, Infrastructure, and Jobs, Skills, Training and Labour. Under Standing Order 52.07 the Committee has the ability to initiate a review on any matter of public policy within its mandate. Having initiated any such review, the Committee must conclude the inquiry and issue a substantive report to the Assembly within six months.

On November 25, 2013, the Standing Committee on Alberta's Economic Future passed the following motion to undertake a study of the feasibility of establishing a high-speed rail system in Alberta, in phases.

Moved by Mr. Bhardwaj that given the rapid and continual growth in the population of Alberta, in the interest of maximizing the economic impact of that population growth, the Standing Committee on Alberta's Economic Future undertake a study of the feasibility of establishing a high-speed rail transit system to be built for Alberta in phases.

As part of the study of the feasibility of establishing a high-speed rail transit system in Alberta, the Committee received a briefing from the Ministry of Transportation on December 3, 2013, held stakeholder presentation meetings on January 29, 2014, and February 4 and 5, 2014, and held public input meetings on February 24, 25, and 26, 2014, in Calgary, Red Deer, and Edmonton, respectively. Throughout these meetings the Committee heard 23 oral presentations and received nine written submissions from identified stakeholders (Appendix B) and heard 40 oral presentations and received 69 written submissions from members of the public (Appendix C).

After completing the information-gathering process, the Committee met on May 6, 2014, to discuss the issues raised throughout the review. At the conclusion of the meeting, the Committee passed a motion to delegate the preparation of a draft final report to the Chair in consultation with the working group, which comprises Jason Luan (PC), Rod Fox (W), Kent Hehr (AL), and David Eggen (ND). The Committee met on May 16, 2014, to review and approve the draft final report that was prepared by Research Services at the direction of the working group on May 12, 2014.

This report contains the recommendations of the Standing Committee on Alberta's Economic Future following its deliberations on the feasibility of establishing a high-speed rail transit system in Alberta. This report is not intended to be a comprehensive record of the Committee's proceedings, nor is it a review of individual projects or proposals. For a complete record, reference should be made to the *Alberta Hansard* transcripts of the Committee proceedings, which include the oral presentations made to the Committee and the summary of presentations and research reports that were prepared by the Legislative Assembly Office's Research Services, as well as other related documents that were submitted to the Committee (see Appendix D).

2.0 SUMMARY OF COMMITTEE RECOMMENDATIONS

The Standing Committee on Alberta's Economic Future makes the following recommendations with respect to the feasibility of establishing a high-speed rail transit system in Alberta.

1. The Government of Alberta should not invest in a high-speed rail transit system in the Edmonton-Calgary corridor at this time because the population of the corridor is not sufficient to support the profitable operation of such a system.
2. The Government of Alberta should include in its long-term transportation infrastructure strategic plan the expansion of light-rail transit and the development of regional transportation systems.
3. As part of the long-term transportation infrastructure strategic plan, the Government of Alberta should identify a greenfield transportation/utility corridor between Calgary and Edmonton to assist in future transportation infrastructure planning with capacity for a potential high-speed rail transit system.
4. The Government of Alberta should begin the process of acquiring land for a transportation/utility corridor right-of-way between Calgary and Edmonton, as budgets warrant, following public consultation with affected landowners, including Aboriginal groups.
5. The Government of Alberta should investigate the development of a regulatory model to allow for private investors who can raise both the capital for high-speed infrastructure and procurement of land to be able to go forward to build this necessary infrastructure.

3.0 BACKGROUND

High-speed rail (HSR) systems have been operating in Europe and Asia for more than 25 years; however, few such systems exist in North America. With the exception of a few HSR systems powered by magnetic levitation (maglev), most HSR systems in Europe and Asia are powered by electricity and are designed either with tilting mechanisms that allow operation on existing track at moderately fast speeds (125-150 mph/200-240 km/h) or operate on dedicated alignments with track geometry that allows trains to maintain high speeds (200-plus mph/300-plus km/h). The systems that operate in Europe and Asia do not conform to some North American safety design standards and, as such, were they to be used in North America, they would require special authorization to operate only on dedicated track or would need to be adapted to North American standards.

The Government of Alberta has, periodically, over the past few decades, considered the feasibility of establishing an HSR system in the Edmonton-Calgary corridor and commissioned various studies on the subject between 1975 and 1995.* Given the continued population growth and strong economic performance in the province over the past decade, the Government of Alberta again turned its attention to HSR with the idea that enhancing the transportation linkage between the two largest population centres in the province, Edmonton and Calgary, and the communities in between would yield economic benefits. By integrating the corridor with an HSR system, the region could be promoted as one economic unit of more than two million people, which would ideally further economic development in the region.

The Government of Alberta commissioned two reports that were released in 2004 and 2009 regarding the establishment of an HSR system between Edmonton and Calgary. The Van Horne Institute prepared the *Calgary/Edmonton High Speed Rail: An Integrated Economic Region* report (the “Van Horne study”), which was released in 2004, and two cost updates for the report, which were released in August 2011 and December 2013. The Van Horne study analyzes many HSR issues, including capital and operating costs, financial structure alternatives, technology and alignment options, socio-economic benefits, and ridership and revenue forecasts.

Transportation Economics & Management Systems, Inc. (TEMS) conducted an independent investment-grade study to assess the market for a potential HSR system in the Calgary-Edmonton corridor. TEMS and Oliver Wyman, a management consulting firm, prepared the *Market Assessment of High Speed Rail Service in the Calgary-Edmonton Corridor* report (the “TEMS and Oliver Wyman Market Assessment”) and TEMS wrote the *Economic Benefits for Development of High Speed Rail Service in the Calgary-Edmonton Corridor* report (the “TEMS Economic Benefits Assessment”), both of which were submitted to the Government in February 2008, along with technical appendices, and released by the Government in July 2009. The Market Assessment included ridership and revenue forecasts as well as financial and economic analyses of HSR in Alberta. The Economic Benefits Assessment consisted of an independent analysis of the supply and demand benefits that would potentially be generated by the development of HSR in the Edmonton-Calgary corridor.

According to the TEMS and Oliver Wyman Market Assessment, there were approximately 50 million trips along the Edmonton-Calgary corridor in 2006. The number of trips per year along the corridor is forecasted to increase to approximately 105 million in 2031 and approximately 149 million in 2051. The Van Horne Institute’s 2013 cost update to the 2004 Van Horne study referred to increases in travel time along the corridor, indicating increasing traffic congestion. According to the 2013 cost update, travel time has increased at a rate of 0.5 per cent per year, which, according to the Van Horne Institute, concurs with the TEMS and Oliver Wyman Market Assessment base scenario congestion estimates. Officials from the Ministry of Transportation indicated to the Committee during its meeting on December 3, 2014, that, based on the information contained in the TEMS and Oliver Wyman Market Assessment, the Edmonton-Calgary corridor “has the highest trip generation in North American city pairs, about three to four times the Toronto-Montreal trip generation rate.” Ministry officials went on to state that the level of traffic along the corridor is “equivalent to a population of 8 million to 10 million people.” Apart from the contention that an

* HSR feasibility reports commissioned by the Government of Alberta from 1975 to 1995 are listed in the annotated bibliography in Appendix D.

HSR system would lead to increased economic development in Alberta, the Government may consider the establishment of an HSR system as a means of addressing increased traffic and congestion on the Queen Elizabeth II Highway, if the traffic level estimates are accurate.

Both the Van Horne study and the TEMS and Oliver Wyman Market Assessment considered various technology, routing, and track options for HSR in Alberta. Both studies advanced the possibility of adapting the existing Canadian Pacific (CP) railway alignment to handle its current freight train schedule and HSR on the same track. Known as “mixed traffic” or the “CPR alignment,” under this option the track could be adapted for certain types of lower-speed (125 mph/200 km/h) HSR technology while at the same time continuing to be used by CP to transport freight. Upgrading the CP track is estimated to be less expensive than creating an entirely new dedicated HSR track.

Both studies also explored the possibility of establishing a new, dedicated HSR track, known as the “greenfield alignment,” which could be built with or without track electrification. The Van Horne study proposed that a greenfield alignment should merge with the CP alignment as it enters the cities of Edmonton and Calgary to avoid having to build track into the downtown areas of each city. Because the CP alignment could only accommodate certain lower-speed HSR systems, building a dedicated HSR track, although more costly, might be considered more desirable because it would accommodate higher-speed (150-plus mph/240-plus km/h) HSR technology.

When the Government released the TEMS Market and Economic Benefits Assessments on July 6, 2009, the Minister of Transportation, Hon. Luke Ouellette, indicated that the Government had not yet made a decision with respect to establishing an HSR system but that the reports contained useful information and data that would assist the Province as it considered various transportation infrastructure options. The Government currently owns some parcels of land both in Calgary and Edmonton and has acquired the rights to certain rights-of-way in Edmonton that may or may not be used for HSR.*

* In Calgary, the Government of Alberta owns lands south of the Canadian Pacific Railway tracks from west of the Elbow River to 3rd Street S.E. In Edmonton, the Government of Alberta owns the rights to the top deck of the High Level Bridge, Canadian Pacific Railway rights-of-way from 82nd Avenue to Jasper Avenue, and the Canadian Pacific Railway container yard south of Whitemud Drive. This information was obtained from an official with the Ministry of Transportation.

4.0 RATIONALE FOR RECOMMENDATIONS

4.1 Current Feasibility of High-Speed Rail

Population and Traffic Levels in the Edmonton-Calgary Corridor

The Committee received considerable information with respect to the feasibility of HSR. It heard that the population and traffic levels along the Edmonton-Calgary corridor are not sufficient to support an HSR system between Alberta's two largest cities and that it may potentially take decades before the population and traffic levels will be large enough to support HSR. As indicated, the Ministry of Transportation suggested to the Committee that, based on the information contained in the TEMS and Oliver Wyman Market Assessment, the level of traffic along the corridor equates to a corridor with a population of eight million to 10 million people. However, Dr. Matti Siemiatycki, a professor in the Department of Geography and Program in Planning at the University of Toronto, indicated that, of the HSR systems around the world, the systems built primarily to alleviate congestion on a heavily travelled airplane or road corridor are the most successful. Dr. Siemiatycki noted that the Edmonton-Calgary corridor has the smallest population of all the North American corridors currently being considered for HSR and that the communities in the corridor are "fairly dispersed and relatively auto-oriented." Dr. Siemiatycki suggested that the congestion that exists in Alberta today is within the cities of Edmonton and Calgary and that it would make more sense to invest public infrastructure money in urban transportation systems to address these existing congestion problems. If and when the time comes that HSR is feasible, fully developed municipal public transit systems in Edmonton and Calgary would exist to support HSR.

Ridership and Revenue

If the operation of an HSR system is to be profitable it is presumed that the system would operate without subsidies and that there would be a repayment of the initial capital investment to build the system. The Committee heard that currently an HSR system would not attract sufficient ridership to enable the system to generate an operating profit. Dr. Siemiatycki suggested that, based on what he has read about HSR systems internationally, to be able to predict that an HSR system will be profitable, ridership numbers should be "between eight million and 10 million riders per year as soon as the system opens" based on a line of optimal length (approximately 315 miles/506 km). Dr. Siemiatycki went on to note that ridership in the shorter Edmonton-Calgary corridor was forecasted by TEMS and Oliver Wyman at between 1.3 million and 5.4 million riders per year in 2021 and at between 2.8 million and 10.7 million in 2051, depending on the speed of the HSR system selected. Dr. Siemiatycki argued that even based on 2051 forecasts, "the ridership is still below that threshold that this project would need to really be economically viable on a purely financial basis." In addition, he pointed out that the high end of the TEMS and Oliver Wyman forecasts factor in the use of the fastest HSR technology available, which is also the most expensive technology to build and operate. Dr. Siemiatycki noted that Amtrak's Acela Express service offered in the northeast U.S. corridor (Boston, New York, and Washington) carries approximately 3.4 million riders per year in an area that has a higher, more dense population and less auto-oriented urban centres than the Edmonton-Calgary corridor.

Both Dr. Siemiatycki and CPCS, a consulting firm, cautioned against relying on estimates of ridership on proposed HSR systems, noting that such estimates are often inaccurate and do not yield the predicted ridership and resulting revenue. CPCS suggested that some HSR projects around the world have attempted unsuccessfully to forecast accurate ridership levels and that HSR projects in Taiwan, Australia, and the European Union have been built based on "ridership projection[s] that did not materialize." According to CPCS, travellers do not switch their modes of travel simply for reasons of preference. The reason HSR is successful in the northeast U.S. corridor is partly because that corridor is quite congested and parking costs are extremely high, and one reason HSR is popular in Europe is because the cost of fuel is much higher in Europe than it is in North America.

Financial Considerations

The Van Horne Institute presented to the Committee an overview of its 2013 cost update to the 2004 Van Horne study, concluding that the current cost to build an HSR system would likely range between \$2.6 billion and \$5.2 billion, with annual operating costs of \$93 million to \$129 million. However, TEMS, which did not include capital cost estimates in its 2008 Market Assessment, indicated to the Committee that the cost to build an HSR system using technology capable of operating at a speed of over 125 mph (200 km/h) on a greenfield alignment would be between \$5 billion and \$7 billion.

Dr. Siemiatycki commented on HSR financing, suggesting that the federal government typically contributes to some of the capital costs of transportation infrastructure projects, possibly between one-third and one-half of the capital costs, but does not fund operating costs. According to Dr. Siemiatycki, if that scenario held true in Alberta, the Government of Alberta would likely have to pay the balance of the capital costs. Dr. Siemiatycki and CPCS do not believe that an HSR system would be profitable in Alberta at this time and, as such, they do not think that the private sector would be interested in financing such a project. Dr. Siemiatycki commented that the private sector “might finance some of the upfront costs of this project, but the majority of the money for this project is going to be paid for by one level of government or another, most likely the provincial government.”

The Van Horne Institute suggested that an HSR system in the Edmonton-Calgary corridor could earn an operating profit and estimated that if the Government financed 100 per cent of the capital costs of an HSR project, the capital investment would be repaid in 25 to 34 years (depending on which alignment was chosen) and that the time for repayment could be reduced because of lower-than-anticipated interest rates. TEMS indicated to the Committee that, based on studies it has done in North America, HSR systems that travel at speeds faster than 125 mph (200 km/h) typically make enough money to cover their operating costs but not enough money to cover the capital costs of the system. According to TEMS, forecasting an operating surplus allows a government interested in establishing HSR to develop a public-private partnership because there would likely be private-sector interest in investing in HSR if a private company could earn a profit operating an HSR system. However, Dr. Siemiatycki and CPCS disagreed with TEMS and the Van Horne Institute, indicating that in addition to paying capital costs, the provincial government would also likely need to subsidize the operation of an HSR system. Furthermore, Dr. Siemiatycki argued that the capital investment would not be repaid or would only be repaid over a long period of time through economic benefits (e.g., increased employment and property values, expanded tax base). Dr. Siemiatycki noted that of all the HSR systems in the world, only two (Tokyo-Osaka and Paris-Lyon) are making a profit, one is breaking even,* and all other HSR systems are subsidized “by someone and that is going to end up being government in our system.”

Perceived Economic Benefits

A key consideration with respect to public investment in HSR is the amount of economic benefit generated by the development of the system for the Government of Alberta, Albertans, and the province as a whole. The existence of HSR systems can generate economic benefits for both users (e.g., travel time and cost savings) and the community as a whole (e.g., jobs; increased property, income, and commercial taxes; and other spin-off economic benefits). TEMS offered the Committee forecasts with respect to some of the economic benefits of establishing an HSR system, noting that the HSR technology selected may affect the level of economic benefit attained because a faster HSR train would make more trips each day and therefore could have greater levels of ridership than a slower HSR system. Based on this premise, TEMS indicated that the overall benefits to the corridor from a project such as this in “sheer economic terms” could be approximately \$20 billion. According to TEMS, if an HSR system was built using 200 mph (320 km/h) technology, 6,400 permanent jobs would be created over 30 years, which would equate to 190,000 person-years of employment, boosting income in the corridor by \$400 million per year and increasing income tax by approximately \$56 million per year. TEMS also suggested that property values would increase by approximately \$1.4 billion because of property development that would occur near HSR stations.

* Dr. Siemiatycki did not indicate which HSR system is breaking even.

CPCS offered a counterargument suggesting that some of the perceived economic benefits of HSR (e.g., increased mobility and productivity, potential reductions in emissions, fewer accidents, and time savings) are difficult to quantify or measure, and all are dependent on the level of HSR ridership that would be attained. According to CPCS, the economic benefits to be achieved by HSR hinge “on the willingness of people to shift their travel preferences to rail.”

Dr. Siemiatycki suggested that the existence of HSR systems does not necessarily produce new economic development, but rather it stimulates development of existing businesses and institutions in cities connected by HSR and has little economic effect on cities that are not connected by the HSR system. He noted that if an HSR system was to be built in the Edmonton-Calgary corridor, economic growth would be concentrated in Edmonton and Calgary “but may leave others behind who are not being connected, so it’s worth considering who’s going to be impacted.” Dr. Siemiatycki also commented on the effect of an HSR system on tourism, noting that while an HSR system would attract tourists because of its ability to transport people to different areas of the province more quickly, the number of overnight stays for tourists may be reduced: “You might get more tourists, but you might also have them staying shorter periods and potentially spending less.”

Dr. Siemiatycki commented on the opportunity cost of investing in HSR, cautioning that when spending a substantial amount of public money on a project, it is “important to spend that money as wisely as possible.” He suggested that the risk of spending public money on projects that do not deliver benefits is twofold: government misses an opportunity to invest in a project that offers more economic benefits than costs, and the public may “lose confidence that their decision-makers can invest public money in projects that really deliver the greatest benefits.”

Development of High-Speed Rail by Private Investors

Some presenters argued that an HSR system could be built and operated in the Edmonton-Calgary corridor without any investment of public funds. These presenters contended that they could raise, through private investment, the necessary capital to build an HSR system and that they had developed a financial model that would allow for the profitable operation of an HSR system. According to these presenters, all that would be required of the Government would be the establishment of an HSR regulatory review framework.

4.2 Transportation Infrastructure Strategic Plan

The Committee heard from many stakeholders who argued that HSR might be feasible at some point in the future, once other more pressing transportation infrastructure priorities are addressed. Because infrastructure capital resources are limited, in order to effectively plan for the future these stakeholders contended that the Government needs to develop a long-term strategic plan to set priorities for transportation infrastructure projects. Most of these stakeholders argued that the completion of the light-rail transit systems (LRT) in Edmonton and Calgary and the development of regional transportation systems are critical next steps for transportation infrastructure in Alberta. The Committee concurred with many stakeholders, stating that in order to effectively plan for Alberta’s future transportation infrastructure needs, the Government should develop a long-term strategic plan for transportation infrastructure in the province and that the expansion of LRT in Edmonton and Calgary and the development of regional transportation systems within the Edmonton-Calgary corridor should be included in the strategic plan.

Transportation/Utility Corridors

The Alberta Chambers of Commerce, Van Horne Institute, Alberta Association of Municipal Districts and Counties (AAMDC), and Lacombe County suggested that multi-purpose transportation/utility corridors (TUCs) should be established in order to properly plan for the province's future transportation infrastructure needs. These stakeholders argued that the Committee should urge the Government to plan TUCs that take into account anticipated future population growth and shifting economic priorities. According to these stakeholders, TUCs should include space for HSR, additional freight rail lines, faster truck routes, expanded highway lanes, pipelines, water and sewer lines, electrical grids, and telecommunications infrastructure. Stakeholders suggested that if TUCs were identified, land-use planning uncertainty would be mitigated. Currently, the uncertainty of where a transportation infrastructure corridor would be located has made it challenging for landowners and municipalities to effectively plan for the use of their land. If TUCs were identified, landowners and municipalities would then be able to develop effective land-use plans and people and businesses would be able to react to the location of the TUCs by moving into or away from the corridor depending on their needs and desires.

The Alberta Chambers of Commerce argued that once TUCs are identified land for these TUCs should be acquired immediately, noting that setting aside TUCs "is a fundamental step to proactive provincial planning." The Alberta Chambers of Commerce emphasized that if the Government does not act quickly to acquire the land for TUCs the cost to acquire the land may become prohibitive and Alberta will lose an opportunity to effectively plan for the future of transportation and utilities infrastructure in the province.

4.3 High-Speed Rail in the Future

Many stakeholders indicated potential support for the development of an HSR system in Alberta at some point in the future once the population is larger and more pressing transportation infrastructure priorities are addressed. In the event that HSR is considered in the future, most stakeholders agreed that the system should be built on a greenfield alignment with grade-separated crossings instead of on the existing CP or CN alignment. Stakeholders argued that building an HSR system on a greenfield alignment, although more expensive to construct and operate, would be a more practical choice from a safety, efficiency, and financial perspective.

The Canadian Rail Research Laboratory (CaRRL) suggested that adapting the infrastructure on the CP or CN alignment to accommodate HSR would be problematic and expensive and that even if the necessary upgrades were made to adapt to the requirements of HSR, "we wouldn't quite know what kind of risks you were taking on by using existing infrastructure." Furthermore, CaRRL indicated that the standard of care for freight derailments is lower when freight operates on its own than it would be if freight was operating in mixed traffic with HSR. The different standards of care for freight versus HSR train derailments may put an HSR train at extra risk of damage or derailment if a freight train travelling adjacent to it was to derail.

HSR on a CP alignment could only accommodate certain lower-speed (up to 125 mph/200 km/h) HSR technology. Building an HSR system on a greenfield alignment would allow for the use of higher-speed (150-plus mph/240-plus km/h) HSR technology. This is important because, according to many stakeholders, the ability of an HSR system to generate an operating profit would be dependent on the HSR technology selected. TEMS and the Van Horne Institute argued that faster HSR technology would induce higher levels of ridership and more frequent daily trips, which would result in increased system operating revenues. TEMS indicated that, based on studies it has done in North America, HSR systems that travel at speeds faster than 125 mph (200 km/h) typically make enough money to cover their operating costs. According to revenue estimates in the TEMS and Oliver Wyman Market Assessment revenue levels would increase quite substantially if higher-speed technologies were selected.

CPCS, the Canadian National Railway Company (CN), and CP all agreed that there can be no at-grade crossings on a potential HSR line. CPCS and CN argued that the line would have to be totally fenced off and separated from the road system, animals, and pedestrians. CP noted that there is a safety risk when trains travel across at-grade crossings and that the risk increases with the speed of the train.

5.0 RECOMMENDATIONS

The Committee heard that the current population of Alberta is not sufficient to support a successful HSR system at this time. Some stakeholders argued that the ridership necessary to generate enough revenue to make an HSR system profitable so that it can operate without subsidies would not materialize at this time because the current population is not large enough. Stakeholders suggested that the perceived economic benefits of an HSR system may also not materialize because those benefits are reliant on certain levels of ridership that likely would not be attained. However, some presenters contended that an HSR system could be built and operated in the Edmonton-Calgary corridor without any investment of public funds and that all that would be required of the Government would be the establishment of an HSR regulatory review framework. The Committee also heard from stakeholders that in order to effectively plan for the transportation infrastructure needs of the province for the future the Government needs to develop a long-term strategic plan to set priorities for transportation infrastructure projects. Most of these stakeholders argued that the completion of the light-rail transit systems (LRT) in Edmonton and Calgary and the development of regional transportation systems are critical next steps for transportation infrastructure in Alberta. Stakeholders also argued that as the population grows and economic priorities shift, TUCs should be identified along the Edmonton-Calgary corridor and along other corridors in Alberta. Stakeholders suggested that TUCs should include capacity for HSR, additional freight rail lines, faster truck routes, expanded highway lanes, pipelines, water and sewer lines, electrical grids, and telecommunications infrastructure. In addition, the Committee heard that land for a transportation/utility corridor right-of-way should be acquired between Calgary and Edmonton now, following public consultation with affected landowners, including Aboriginal groups. Stakeholders argued that landowners and municipalities are currently not able to effectively plan for the use of their land in the future because they do not know if a corridor for HSR or other transportation infrastructure is going to be established or where such a corridor would be located.

Therefore, the Standing Committee on Alberta's Economic Future makes the following recommendations with respect to the feasibility of establishing a high-speed rail transit system in Alberta.

1. The Government of Alberta should not invest in a high-speed rail transit system in the Edmonton-Calgary corridor at this time because the population of the corridor is not sufficient to support the profitable operation of such a system.
2. The Government of Alberta should include in its long-term transportation infrastructure strategic plan the expansion of light-rail transit and the development of regional transportation systems.
3. As part of the long-term transportation infrastructure strategic plan, the Government of Alberta should identify a greenfield transportation/utility corridor between Calgary and Edmonton to assist in future transportation infrastructure planning with capacity for a potential high-speed rail transit system.
4. The Government of Alberta should begin the process of acquiring land for a transportation/utility corridor right-of-way between Calgary and Edmonton, as budgets warrant, following public consultation with affected landowners, including Aboriginal groups.
5. The Government of Alberta should investigate the development of a regulatory model to allow for private investors who can raise both the capital for high-speed infrastructure and procurement of land to be able to go forward to build this necessary infrastructure.

6.0 ACKNOWLEDGEMENTS

The Committee wishes to acknowledge the valuable contributions of those who appeared before the Committee and those who made written submissions to provide Committee members with information about the feasibility of high-speed rail.

The Committee also wishes to acknowledge the assistance of Legislative Assembly Office support staff:

Ms Shannon Dean
Ms Leah Kirtio
Ms Sarah Leonard
Mr. Duncan Leung
Dr. Philip Massolin
Ms Nancy Robert
Mrs. Karen Sawchuk
Mr. Ben Thronson
Ms Nancy Zhang
Hansard staff
Security staff

7.0 STAKEHOLDER AND PUBLIC PRESENTATIONS AND SUBMISSIONS

As part of the study of the feasibility of establishing a high-speed rail transit system in Alberta, the Standing Committee on Alberta's Economic Future identified stakeholders on the issue and invited these individuals and organizations to make presentations or submissions to the Committee as part of the review process. The Committee heard a total of 23 presentations and received nine written submissions on high-speed rail. A list of stakeholder presenters and submitters is provided in Appendix B of this report.

In addition, members of the public were given an opportunity to provide input regarding the feasibility of developing an HSR system in Alberta at three public input meetings and through written submissions to the Committee. The Committee heard a total of 40 presentations and received 69 written submissions on high-speed rail. A list of public presenters and submitters is provided in Appendix C of this report.

A number of issues were raised in the presentations and submissions to the Committee with respect to the feasibility of establishing high-speed rail, including

- economic costs and benefits;
- financial issues;
- funding and profitability;
- traffic congestion and high-speed rail ridership forecasts;
- effect of high-speed rail on existing transportation service providers;
- effect of high-speed rail on rural communities along the route;
- effect of Alberta's topography and climatic conditions on high-speed rail;
- safety of high-speed rail;
- regulatory and governance issues; and
- environmental considerations.

APPENDICES

APPENDIX A: MINORITY REPORT – KENT HEHR, MLA

Alberta Liberal Opposition

Minority Report

Authors: Kent Hehr, MLA Calgary-Buffalo

The Alberta Liberal Opposition agrees in principle with the five recommendations of the Standing Committee on Alberta's Economic Future's report. In fact, the Alberta Liberal Party is the only political party in the province to have an official policy endorsing this proposal.

With specific reference to Recommendation Number 5 put forward by the committee:

"The Government of Alberta should investigate the development of a regulatory model to allow for private investors who can raise both the capital for high-speed infrastructure and procurement of land to be able to go forward to build this necessary infrastructure."

It is also the view of the Alberta Liberal Opposition that a regulatory model should be developed to allow for a high-speed rail link between the Calgary and Edmonton corridor, with possible expansion elsewhere, provided there is sufficient private investment and relevant expertise to design, build, own and operate it. Government needs to have a role in the project as a regulator in order to protect the environment, ensure public safety, and provide adequate compensation for affected land owners.

Clearly, there is much skepticism as to whether or not this project is possible. However, that should not be the concern of this committee. What should be of concern is the establishing of the robust regulatory conditions to allow for this exciting project to be built. Alberta has been founded on dreams that eventually become a reality. There is no reason for us to hinder or prevent this initiative now if future conditions may permit it.

We heard compelling testimony from entrepreneurs in this province who believe high-speed rail can be completed without the need for financial assistance from government. This ought to factor into the decision making of this government for the project's overall viability.

The Alberta Liberal Opposition would anticipate the Government of Alberta could essentially establish a regulatory model that allows for the operation of the high-speed rail in the same way utilities, pipelines, or other public infrastructure are regulated.

APPENDIX B: SUBMISSIONS TO THE COMMITTEE BY IDENTIFIED STAKEHOLDERS

Oral Presentations

ORGANIZATION	PRESENTER	DATE OF PRESENTATION
University of Toronto Department of Geography and Program in Planning	Dr. Matti Siemiatycki	January 29, 2014
Edmonton Economic Development Corporation	Mr. Brad Ferguson	January 29, 2014
Red Deer Chamber of Commerce	Mr. Tim Creedon	January 29, 2014
Calgary Economic Development	Mr. Bruce Graham	January 29, 2014
Alberta Chambers of Commerce	Mr. Ken Kobly	January 29, 2014
WestJet	Mr. Mike McNaney	January 29, 2014
Red Arrow Motorcoach	Mr. John Stepovy	January 29, 2014
Canadian National Railway Company	Mr. Warren Chandler	January 29, 2014
Canadian Pacific	Mr. Mike LoVecchio	January 29, 2014
CPCS	Mr. Marc-André Roy	February 4, 2014
Van Horne Institute	Mr. Peter Wallis Mr. Bob Brawn Ms Teresa Watts (Shirocca Consulting)	February 4, 2014
Transportation Economics & Management Systems Inc.	Dr. Alexander Metcalf	February 4, 2014
City of Edmonton	Mayor Don Iveson	February 4, 2014
City of Calgary	Mr. Malcolm Logan	February 4, 2014
Alberta Association of Municipal Districts and Counties	Ms Carolyn Kolebaba Mr. Gerald Rhodes	February 4, 2014
City of Red Deer	Ms Tara Lodewyk Mr. John Sennema	February 4, 2014
Alberta Urban Municipalities Association	Mr. John McGowan Mayor Steve Christie (Lacombe)	February 4, 2014
Regional Municipality of Wood Buffalo	Mr. Henry Hunter	February 4, 2014
Siemens Canada Limited	Mr. Charles Halasz Mr. Rocco Delvecchio	February 5, 2014
Bombardier	Mr. Steve Hall Mr. Paul Larouche	February 5, 2014
Canadian Rail Research Laboratory	Dr. Michael Hendry	February 5, 2014
Magnovate Technologies	Mr. Dan Corns Mr. Scott Matheson Mr. Carl Clayton	February 5, 2014
Alberta High-Speed Rail (2005) Incorporated	Mr. Jack Crawford Mr. Bill Cruickshanks	February 5, 2014

Written Submissions

ORGANIZATION	DATE OF SUBMISSION	FILE NUMBER
Calgary Airport Authority	January 20, 2014	AEF-HSR-001
Lacombe County	January 16, 2014	AEF-HSR-002
Alberta High-Speed Rail (2005) Incorporated	January 24, 2014	AEF-HSR-003
U.S.-Japan High-Speed Rail	January 31, 2014	AEF-HSR-004
Calgary Regional Partnership	January 31, 2014	AEF-HSR-005
Edmonton International Airport	January 28, 2014	AEF-HSR-006
Alberta Wilderness Association	February 4, 2014	AEF-HSR-007
Confederacy of Treaty Six First Nations	February 5, 2014	AEF-HSR-008
Air Canada	January 20, 2014	AEF-HSR-009

APPENDIX C: SUBMISSIONS TO THE COMMITTEE BY MEMBERS OF THE PUBLIC

Oral Presentations

PRESENTER	LOCATION	DATE OF PRESENTATION
John Schmal	Calgary	February 24, 2014
Ed McCulloch	Calgary	February 24, 2014
Andrew Little	Calgary	February 24, 2014
Peter Scholz	Calgary	February 24, 2014
Bill Cruickshanks	Calgary	February 24, 2014
Jim Stevenson	Calgary	February 24, 2014
Jurgen Lehmann	Calgary	February 24, 2014
Tyrell Sinclair	Calgary	February 24, 2014
Jim Jones	Calgary	February 24, 2014
Aziz Merali	Calgary	February 24, 2014
Mark Zaugg	Calgary	February 24, 2014
Derek Macdonald	Calgary	February 24, 2014
Greg Miller	Calgary	February 24, 2014
Mark Lipton	Calgary	February 24, 2014
Morris Flewwelling	Red Deer	February 25, 2014
Loren Wiberg	Red Deer	February 25, 2014
Wesley Oulton	Red Deer	February 25, 2014
Jim Saltvold	Red Deer	February 25, 2014
Gavin Bates	Red Deer	February 25, 2014
Tony Jeglum	Red Deer	February 25, 2014
Evan Bedford	Red Deer	February 25, 2014
Doug Wagstaff	Red Deer	February 25, 2014
Norman Wiebe	Red Deer	February 25, 2014
Mitch Thomson	Red Deer	February 25, 2014
Marty Schmidt	Red Deer	February 25, 2014
Tom Skoreyko	Red Deer	February 25, 2014
Richard Moje	Red Deer	February 25, 2014
Ralph Cervi	Red Deer	February 25, 2014
Larry Wright	Red Deer	February 25, 2014
Ronald Karoles and Glenn Washington	Edmonton	February 26, 2014
Kurtis Ewanchuk	Edmonton	February 26, 2014
Bruce English	Edmonton	February 26, 2014
Neil Hryciw	Edmonton	February 26, 2014
Adil Pirbhai	Edmonton	February 26, 2014
Trevor Thera	Edmonton	February 26, 2014

PRESENTER	LOCATION	DATE OF PRESENTATION
Hans Zurcher	Edmonton	February 26, 2014
Leo McCarthy	Edmonton	February 26, 2014
Sebastian Macovei-Benczur	Edmonton	February 26, 2014
Deryck Webb	Edmonton	February 26, 2014
Paul Godsmark	Edmonton	February 26, 2014

Written Submissions

NAME OF SUBMITTER	DATE OF SUBMISSION	FILE NUMBER
Terry Dejong	February 10, 2014	AEF-HSR-Public-010
Jennifer Hill	February 10, 2014	AEF-HSR-Public-011
Edward and Gloria Yatscoff	February 10, 2014	AEF-HSR-Public-012
Dave Grubwieser	February 10, 2014	AEF-HSR-Public-013
Ben Pike	February 10, 2014	AEF-HSR-Public-014
Michael Risi	February 10, 2014	AEF-HSR-Public-015
Dave Onishenko	February 10, 2014	AEF-HSR-Public-016
Ken Zinyk	February 10, 2014	AEF-HSR-Public-017
William S. Ingles	February 11, 2014	AEF-HSR-Public-018
Marty Pituch	February 11, 2014	AEF-HSR-Public-019
Matthew Tata	February 11, 2014	AEF-HSR-Public-020
Adam Gordon	February 11, 2014	AEF-HSR-Public-021
Rubani Shaw	February 11, 2014	AEF-HSR-Public-022
John Williams	February 11, 2014	AEF-HSR-Public-023
Kelly Banco	February 11, 2014	AEF-HSR-Public-024
Donald W. Blackwell	February 11, 2014 March 20, 2014	AEF-HSR-Public-025 AEF-HSR-Public-025a
Terry Bible	February 11, 2014	AEF-HSR-Public-026
Dean Umpherville	February 11, 2014	AEF-HSR-Public-027
Martin McNally	February 11, 2014	AEF-HSR-Public-028
Storme Blais	February 12, 2014	AEF-HSR-Public-029
D. Ross	February 12, 2014	AEF-HSR-Public-030
Tanya Brunelle	February 12, 2014	AEF-HSR-Public-031
Shelley Ford – Councillor, Town of Claresholm	February 12, 2014	AEF-HSR-Public-032
Elaine Roberts	February 13, 2014	AEF-HSR-Public-033
James Crisp	February 10, 2014	AEF-HSR-Public-034
Richard Zajac	February 14, 2014	AEF-HSR-Public-035
Carl Duerichen	February 14, 2014	AEF-HSR-Public-036
Pam Amulaku	February 16, 2014	AEF-HSR-Public-037
Dan Grassick	February 18, 2014	AEF-HSR-Public-038

NAME OF SUBMITTER	DATE OF SUBMISSION	FILE NUMBER
Stephen Hinton	February 18, 2014	AEF-HSR-Public-039
Shane Runnett	February 18, 2014	AEF-HSR-Public-040
Anton Hauck	February 19, 2014	AEF-HSR-Public-041
Leo D. Puerzer	February 19, 2014	AEF-HSR-Public-042
Liz Siemens	February 20, 2014	AEF-HSR-Public-043
Roxanne Felix-Mah	February 20, 2014	AEF-HSR-Public-044
Dennis Danchuk	February 21, 2014	AEF-HSR-Public-045
William M. Faulkner	February 22, 2014	AEF-HSR-Public-046
Ken Poulsen	February 22, 2014	AEF-HSR-Public-047
Kendall V. Payne	February 24, 2014	AEF-HSR-Public-048
Janet and Raymond Adair	February 15, 2014	AEF-HSR-Public-049
Brad and Cheryl Goss	February 16, 2014	AEF-HSR-Public-050
Andrew Barclay	February 17, 2014	AEF-HSR-Public-051
Richard Buxton	February 25, 2014	AEF-HSR-Public-052
Bill Pender	February 25, 2014	AEF-HSR-Public-053
A.M. Hambridge	February 17, 2014	AEF-HSR-Public-054
Paul Morris	February 27, 2014	AEF-HSR-Public-055
Liang (Emily) Chen	February 27, 2014	AEF-HSR-Public-056
Fred McDougall	February 25, 2014	AEF-HSR-Public-057
Duplicate Entry	N/A	See AEF-HSR-Public-048
Nazir Walji	February 26, 2014	AEF-HSR-Public-059
Eric R. Ham	March 4, 2014	AEF-HSR-Public-060
Alex McPherson	March 5, 2014	AEF-HSR-Public-061
Jacque Lycka	March 5, 2014	AEF-HSR-Public-062
Cameron Melin	March 5, 2014	AEF-HSR-Public-063
S. Schultz	February 24, 2014	AEF-HSR-Public-064
Carol Bergum	March 7, 2014	AEF-HSR-Public-065
A. Craig Elder	March 9, 2014	AEF-HSR-Public-066
Frank and Yvonne Bauer	March 14, 2014	AEF-HSR-Public-067
Bryan Larocque	March 16, 2014	AEF-HSR-Public-068
K. Michael Rademacher	March 22, 2014	AEF-HSR-Public-069
Brian Hildebrandt	March 20, 2014	AEF-HSR-Public-070
Barry Brown	March 24, 2014	AEF-HSR-Public-071
Roland Guay	March 25, 2014	AEF-HSR-Public-072
Timothy Robinson	March 24, 2014	AEF-HSR-Public-073
Ben Ang	March 28, 2014	AEF-HSR-Public-074
B.A. Stein	March 30, 2014	AEF-HSR-Public-075
Doug Wagstaff – Director, Community Services, Town of Olds	March 31, 2014	AEF-HSR-Public-076
Joy Hudon	March 31, 2014	AEF-HSR-Public-077
Don W. Scott	February 27, 2014	AEF-HSR-Public-078

APPENDIX D: ANNOTATED BIBLIOGRAPHY

Albalate, Daniel and Germà Bel. Research Institute of Applied Economics. Universitat de Barcelona. Working Paper. “High-Speed Rail: Lessons for Policy Makers from Experiences Abroad.” Barcelona, Spain: University of Barcelona, 2010. Available at http://www.ub.edu/irea/working_papers/2010/201003.pdf

In this working paper, Associate Professor Daniel Albalate and Professor Germà Bel from the University of Barcelona study and analyze significant high-speed rail projects carried out around the world, specifically those in Japan, France, Germany, Spain, and Italy. The authors focus their attention on the main issues involved in the development of high-speed rail projects: their impact on mobility, the environment, the economy, and on urban centres.

Alberta. Alberta High Speed Rail Review Committee. *Report of the Alberta High Speed Rail Review Committee to the Honourable Larry Shaben, Minister of Economic Development and Trade.* Edmonton: Alberta HSR Review Committee, June 1986.

This report contains an assessment of the feasibility of developing a high-speed rail system between Edmonton and Calgary through a private-public partnership.

Alberta. Department of Economic Development. *High-Speed Prospects in the Calgary-Edmonton Corridor.* Edmonton: Economic Development, March 1985.

This report outlines the results of a feasibility study regarding the development of a high-speed rail system between Edmonton and Calgary, including an analysis of traffic in the corridor, capital costs, projected revenue and operational costs, financial considerations, and economic benefits.

Alberta. Department of Economic Development and Trade. *Alberta High Speed Rail Concept, Findings of Alberta Economic Development and Trade (1981-1985).* Edmonton: Economic Development and Trade, March 31, 1995.

This report provides a synopsis of the two above-mentioned HSR feasibility reports, prepared by the Department of Economic Development in March 1985, entitled *High-Speed Prospects in the Calgary-Edmonton Corridor*, and prepared for the Department of Economic Development and Trade in June 1986, *Report of the Alberta High Speed Rail Review Committee to the Honourable Larry Shaben, Minister of Economic Development and Trade*. This report contains an update to *High-Speed Prospects in the Calgary-Edmonton Corridor*.

Canada. House of Commons. Standing Committee on Transport. *High Speed Rail: The Canadian Concept – Report of the Standing Committee on Transport.* Ottawa: House of Commons Standing Committee on Transport, March 1992.

The House of Commons Standing Committee on Transport studied the concept of high-speed rail both in Europe and Canada and made recommendations with respect to the role of the federal government in the development of high-speed rail in Canada.

CPCS Transcom Limited. *Study of High Speed Rail Impacts on Rural Alberta, Final Report.*
Ottawa: CPCS, October 1, 2010.

This report was prepared by CPCS Transcom Limited (CPCS) at the request of the Alberta Association of Municipal Districts and Counties (AAMDC). The AAMDC asked CPCS to study the impacts of a potential high-speed rail system on Alberta's rural communities. The report identified potential impacts to rural Alberta in the following categories: road users, commercial and economic, social and environmental, and administrative and planning. In addition, the report also made recommendations with respect to mitigation strategies to address the impacts of high-speed rail on rural Alberta and the estimated costs of such mitigation strategies.

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This report was prepared by CP Rail for the Government of Alberta outlining a market assessment, project plan, and capital and operational estimates for a high-speed rail system between Edmonton and Calgary.

Shirocca Consulting. *Calgary/Edmonton High Speed Rail: An Integrated Economic Region.*
Calgary, Alberta: The Van Horne Institute, October 2004. Available at
[http://vanhorne.info/files/vanhorne/HSRFullReport\(1062004\)_0.pdf](http://vanhorne.info/files/vanhorne/HSRFullReport(1062004)_0.pdf)

This report is a high-speed rail feasibility study that was prepared by Shirocca Consulting for the Van Horne Institute at the request of the Government of Alberta. The report includes capital and operational cost estimates, ridership and revenue forecasts, alignment options, infrastructure requirements, proposed financial structures, and potential socio-economic benefits of a high-speed rail system along the Edmonton-Calgary corridor.

Shirocca Consulting and Anthony Steadman and Associates. "Cost Update for *Calgary/Edmonton High Speed Rail: An Integrated Economic Region.*" Calgary, Alberta: The Van Horne Institute, August 2011. Available at
<http://vanhorne.info/files/vanhorne/HighSpeedRailUpdatedCostReport2011.pdf>

This document contains an update of the capital cost estimates included in the 2004 high-speed rail feasibility study conducted by the Van Horne Institute.

Shirocca Consulting. "Updated Cost and Ridership/Revenue for Calgary Edmonton High Speed Rail" Calgary, Alberta: The Van Horne Institute, December 2013. Available at
<http://vanhorne.info/files/vanhorne/HighSpeedRailUpdateReport.pdf>

This document contains a further update of the capital cost estimates and ridership and revenue forecasts included in the 2004 high-speed rail feasibility study conducted by the Van Horne Institute.

Transportation Economics & Management Systems, Inc. (TEMS) and Oliver Wyman. *Market Assessment of High Speed Rail Service in the Calgary-Edmonton Corridor.* Edmonton: Alberta Infrastructure and Transportation, July 2009. Available at
http://www.transportation.alberta.ca/Content/publications/production/AIT_Market_Assessment_Full_Rpt_02-2008_FINAL_rev.pdf

This report was prepared by TEMS and Oliver Wyman at the request of the Government of Alberta. The report is an independent investment-grade study to assess the market for a potential high-speed rail system in the Calgary-Edmonton corridor.

Transportation Economics & Management Systems, Inc. (TEMS). *Economic Benefits for Development of High Speed Rail Service in the Calgary-Edmonton Corridor*. Edmonton: Alberta Infrastructure and Transportation, July 2009. Available at http://www.transportation.alberta.ca/Content/publications/production/Economic_Benefits_of_HST_02-2008_rev.pdf

This report was prepared by TEMS at the request of the Government of Alberta. The report is an independent analysis of the demand side user benefits (e.g., consumer benefits and resource and emissions savings) and supply side economic benefits (e.g., employment, income, and property value increases) of a potential high-speed rail system in the Calgary-Edmonton corridor.

Transcripts

Legislative Assembly. Standing Committee on Alberta's Economic Future.

November 25, 2013, *Hansard* Transcript No. 28-1-16, EF-209 to EF-214.

December 3, 2013, *Hansard* Transcript No. 28-1-17, EF-215 to EF-222.

December 12, 2013, *Hansard* Transcript No. 28-1-18, EF-223 to EF-230.

January 29, 2014, *Hansard* Transcript No. 28-1-19, EF-231 to EF-264.

February 4, 2014, *Hansard* Transcript No. 28-1-20, EF-265 to EF-304.

February 5, 2014, *Hansard* Transcript No. 28-1-21, EF-305 to EF-332.

February 24, 2014, *Hansard* Transcript No. 28-1-22 EF-333 to EF-350.

February 25, 2014, *Hansard* Transcript No. 28-1-23, EF-351 to EF-368.

February 26, 2014, *Hansard* Transcript No. 28-1-24, EF-369 to EF-386.

May 6, 2014, *Hansard* Transcript No. 28-2-8, EF-541 to EF-544.

May 16, 2014, *Hansard* Transcript No. 28-2-9, EF-545 to EF-554.