Legislative Assembly of Alberta

The 28th Legislature
First Session

Standing Committee on Alberta's Economic Future

High-speed Rail
Public Input Meeting in Edmonton

Wednesday, February 26, 2014
6:30 p.m.

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Standing Committee on Alberta's Economic Future

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Standing Committee on Alberta's Economic Future

Participants

6:30 p.m. Wednesday, February 26, 2014

[Mr. Amery in the chair]

Location: Edmonton

The Chair: Well, good evening, ladies and gentlemen. I would like to welcome all members of the committee and attendees to this public input meeting, including those who are joining us via teleconferencing. My understanding is that Mr. Stier, Ms Pastoor, and Mr. McDonald are joining us by teleconferencing.

Now I would like to ask that committee members introduce themselves for the record and for the benefit of those attending. Please indicate if you are attending as a substitute for a committee member.

I am Moe Amery, MLA for Calgary-East and chair of this committee.

Mr. Quadri: Sohail Quadri, MLA, Edmonton-Mill Woods.

Mr. Rogers: George Rogers, MLA for Leduc-Beaumont.

Ms Olesen: Good evening. Cathy Olesen, MLA, Sherwood Park.

Mr. Luan: Jason Luan, MLA, Calgary-Hawkwood.

Mr. Dorward: Welcome, everybody in the room. David Dorward, MLA for Edmonton-Gold Bar.

Mrs. Sarich: Good evening, and welcome. Janice Sarich, MLA for Edmonton-Decore.

Mr. Rowe: Good evening. Bruce Rowe, MLA for Olds-Didsbury-Three Hills.

Ms Robert: Good evening. Nancy Robert, research officer with the Legislative Assembly Office.

Mr. Xiao: Good evening. David Xiao, MLA for Edmonton-McClung.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: Mr. Stier and Mr. McDonald, would you like to introduce yourselves, please?

Mr. Stier: Yes. Thank you. Pat Stier, MLA for Livingstone-Macleod. I'm subbing in this evening for MLA Rick Strankman, Drumheller-Stettler. Thank you.

The Chair: Great. Thank you.

Mr. McDonald: Good evening. Everett McDonald, MLA, Grande Prairie-Smoky.

The Chair: Thank you, Mr. McDonald.

Mr. Washington: Good evening. My name is Glenn R. Washington, and I'm representing Das Global Capital Holdings Trust Corporation.

The Chair: Okay. Thank you, Mr. Washington.

Is Ms Pastoor with us yet? Okay.

Ladies and gentlemen, by way of background, in November of last year the Standing Committee on Alberta's Economic Future commenced a study on the feasibility of establishing a high-speed rail system within Alberta, and it must report its findings to the Legislative Assembly in May 2014. The committee has heard from 23 stakeholders with expertise or an interest in high-speed rail and has received nine written submissions from stakeholders as well. The committee is now conducting public input meetings in Calgary, Red Deer, and Edmonton and has also invited written submissions from interested Albertans. To date the committee has received in excess of 45 written submissions from Albertans.

The committee understands the importance of providing Albertans with an opportunity to participate in this study, and we look forward to hearing from those who present to us this evening. The meeting will conclude at 9 p.m. or earlier depending on the number of presenters we hear from this evening.

Just a few housekeeping items to address before we turn to the business at hand. Each presenter will have a maximum of 10 minutes to make their presentation, followed by five minutes for questions from the committee. If a presenter wishes to follow up with additional information or to provide a more detailed explanation of his or her presentation, they may follow up in writing through the committee offices.

Audio of committee proceedings is streamed live on the Internet and recorded by *Alberta Hansard*. The *Hansard* transcript for this evening's meeting can be accessed via the Legislative Assembly of Alberta website later this week.

Ladies and gentlemen, with these very few and brief remarks we will begin with our first presenter, who is being joined by his copresenter via teleconferencing. I'd like to introduce Mr. Ron Karoles. Mr. Karoles, please introduce yourself for the record. You have 10 minutes. You can divide it whichever way you want between you and your copresenter.

Ronald Karoles and Glenn Washington

Mr. Karoles: Yes. Thank you, Mr. Chair. My name is Ron Karoles. I've lived most of my life in Alberta, was educated in Alberta.

The Chair: Please speak up so we can all hear you.

Mr. Karoles: I'm an Albertan. I want to present a picture that might be described as high-speed rail; we prefer to call it high-speed transit. It's based on Maglev 2000 technology, copies of which you have. By the way, I'm going to try to get my colleague Mr. Washington on in three minutes because he's going to be discussing the financing.

I wish to express to everyone my humility and utmost gratitude for the honour and privilege that the standing committee has extended to me in the form of an invitation to speak to you summarily on the feasibility of our submission and proposal inscribed therein.

Before I begin, I wish to extend to you the introduction of my friend and colleague Mr. Glenn R. Washington, who is most directly responsible for the design, objective, and nature of the financial means of the proposal. He is here to share my allotted time with you and to answer any questions you may have regarding the fundamental part of his submission.

Let me begin with the assertion and confirmation of two other matters fundamental to the feasibility of the project. The first is our corporate, professional relationship with the inventors or discoverers of the application of magnetic levitation to the transportation industry, the most modern version being referred to as the Maglev 2000, a system as substantially different from its earlier version, Maglev 1000, as it is from the technology of grade-level railway systems. Doctors Powell and Danby, Dr. Danby being a Canadian, have recorded in e-mails to us the very basic terms of a verbal agreement to sell to us the operating patents for maglev. More importantly, the group of experts that

doctors Powell and Danby have worked with and trained is most anxious to contract with us to serve the project as an authoritative part of the project management team. So the technology is in our hands. It's just not coming from us. In brief, we have a management strategy for the construction of the project which is second to none in terms of the team's knowledge of and experience with the capital structures required for the Maglev 2000 transit system in our proposal.

Second is an operational strategy to which we are committed, from avoiding the off-site costs needed for high-speed rail to be adopted in Alberta to the European concept of a dedicated near-grade-level alignment, to our working with other provincial transportation agencies – LRTs, bus lines, highway truck transportation, conventional railways, and to some extent airlines – in future developments and in efficient interrelations among our separate systems.

We are mindful of the economic scope of our submission through the unique capacity of Maglev 2000 to transfer a beam guideway to a flat-bottomed, U-shaped planar guideway or, by way of special means, as sort of a transformation, to usage of grade-level railway track. All three are available to the Maglev 2000 technology. We believe the project is not only highly feasible, but it has features which satisfy and will satisfy, in addition to extensions to be constructed in the future, all limitations of other systems under the standing committee's review process.

Again, I thank you for the opportunity to meet with you today, and I wish to turn matters over to Glenn Washington, who has the official financial plan for the project under his supervision. He is the best source of information to respond to questions you will have on that subject, from which you can make an authoritative report on our proposal to the Legislative Assembly of the province of Alberta.

Thank you very much, Mr. Chairman.

The Chair: Thank you, Mr. Karoles.

Mr. Washington, can you hear us?

Mr. Washington: Yes, I can hear you very well.

The Chair: Okay. Go ahead, please.

Mr. Washington: Thank you very much. I appreciate the opportunity to speak to the committee today. My name is Glenn R. Washington. I am the senior vice-president for special projects for Das Global Capital Holdings Trust Corporation, which is domiciled in the United States of America.

Das Global Capital Holdings Trust is the parent company of Das Global Capital group of companies. DAS, Dynamic American Systems, is an articulated global strategic alliance capital growth, global asset management, and global investment holdings organization. Through its vast gold, oil, and gas reserves acquisitions, it is dedicated to promoting its creative concept of its global economic investment development vision and objectives. It is intending to create a brand of global economic revolution during this 21st century, where all human beings are created equally of one race, the human race, for the pursuit of happiness and for global economic prosperity and dedicated to creating and developing a $2 trillion to $5 trillion global asset-based economic growth by the year 2020.

6:40

The purpose of my being here today is to address Das Global Capital Holdings Trust's written commitment but not limited to that, that has been provided to Mr. Ron Karoles, the stakeholder, to provide bankable, insured, privately-held assets under our proprietary management to the named Alberta foundation and operation company to facilitate the full, complete funding required for the Maglev 2000 second-generation high-speed transportation system and its operations. I hereby warrant and represent that the rule of full disclosure will establish that all assets are legally obtained from noncriminal business or actions.

The Maglev 2000 funding and exit strategy. The funding and exit strategy will employ standard commercial banking, debt servicing, and funding transactions, that will provide perpetual self-liquidating proceeds that will fund the Maglev 2000 high-speed transportation system's construction and further future operations via nonrecourse grants provided to the named Alberta foundation and its named operation services company.

The nonrecourse grants are to be issued to the named Alberta foundation, which under its jurisdiction as per the approval of the province's Legislative Assembly, will provide the full, complete funding required for the Maglev 2000 high-speed transportation system and its operations without any financial guarantees from the provinces, the federal government, bond issues, and taxes on local businesses or the public but will allow for the full accounting disclosure to the province's Legislative Assembly in regard to the accumulation of funds into the named Alberta foundation's designated nonrecourse grants account for the purpose of providing the full, complete funding required for the Maglev 2000 high-speed transportation system and its operations.

This funding strategy will also allow for funding as needed in various provinces at the same time to strengthen and establish their transportation hubs and offline systems in regard to the provincial Legislative Assembly's master plan for connectivity to the Maglev 2000 high-speed transportation system.

What's in it for Das Global Capital Holdings Trust Corporation? The opportunity to further demonstrate on a world stage that this project and other future projects can be done without placing the financial burden on the citizens . . .

The Chair: Mr. Washington, sorry for the interruption. You have two minutes left.

Mr. Washington: I'm almost finished.

It still will employ those citizens to manufacture, operate, and service the Maglev 2000 system and sustain economic growth for Alberta and other provinces.

We applaud the standing committee for this foresight that will allow for the funding of the Maglev 2000 and benefit the present and future citizens of Alberta. As stated by Mr. Ron Karoles, the stakeholder, in his proposal:

> We believe the Government of Alberta can now "step up" by financially "stepping aside", with its presence felt in non-financial ways by insisting its standards be met . . . We love our Province and we believe Alberta should seize the opportunity we have attempted to describe.

I thank the committee for allowing my statements into its records. Thank you.

The Chair: Thank you. Thank you for your presentations. I have two questioners for you.

Mr. Dorward: Thank you, Mr. Washington and Mr. Karoles, for presenting. Although your time was brief in terms of our limited time, I can assure you that we will spend considerable time behind the scenes going through your information and possibly getting back to you with more questions and going on websites.

Mr. Karoles, do you think we need the high-speed rail in Alberta?

Mr. Karoles: We do.

Mr. Dorward: Can you just describe why it would be a good thing for Alberta at this point in time, or are you talking in the future?

Mr. Karoles: I'm talking now because the money is available now. That's one; that's critical to our operation.

Sometime down the road – who knows? – there might be suspicion expressed to this committee. When somebody is offering something for free, they're really coming back to the province of Alberta for financial gain. We are not. I have the records of our investments and what we can do and will do. I'll be prepared to agree to the province auditing the accounts on a monthly basis, on a daily basis if that's what the province wants, to show you that the investments can be made of, at least roughly, $5 billion every six months.

Mr. Dorward: Okay. Thank you.

I'll let my other colleagues – I know they have other questions.

The Chair: Thank you, Mr. Dorward.

Mr. Rogers.

Mr. Rogers: Thank you, Mr. Chairman. I want to thank you, gentlemen, for your presentation. I had two questions. One was partially answered, and that question was whether or not you would require any government funds to do this. I thought I heard you say no. So I'll take that one step further and ask, then, what you would require of government to enable you to move this forward.

Mr. Karoles: Well, on a technical basis we want to provide to government a demonstration model from which you can establish the standards for operation of a high-speed transit system. We want to work with the province. In fact, at some point in time Glenn and I will be wanting to go on to other areas for railway service, so we will look to the inheritance of authority by either the province, the cities, or whatever, private citizens who are skilled in managing rather rapid transit systems.

Mr. Rogers: Just a follow-up, Mr. Chairman, if I may. Thank you.

I'll ask a two-part question, Mr. Karoles. One, I'd like you to comment on cold-weather operation, how this system might function in this cold-weather environment that we live in. As you know, as we just experienced in the last few weeks, this can be a very cold place. Secondly, how would you propose to acquire the right-of-way? For example, let's say we were going from, oh, Lethbridge to Edmonton or even Calgary to Edmonton.

Mr. Karoles: Well, we would like to move from Lethbridge all the way through to Fort McMurray and move transport trucks, freight. No other system does what the Maglev 2000, as it operates in Japan, can do. Now, your one question was . . .

Mr. Rogers: How would you acquire the right-of-way?

Mr. Karoles: Well, we would propose to use the right-of-way that exists bordering both sides of the QE II. When you get a chance to read our submission, you will see that we intend to pay for that in one lump sum for the full term of 79 years – there's a legal concept to that – and we would expect that our budget would cover that at $2 billion.

Mr. Rogers: Thank you.

Mr. Karoles: Then we would offer the same advantage to the city of Edmonton and the city of Calgary at $500 million for the advanced payment of 79 years for rights-of-way to access the city of Edmonton and the city of Calgary. So that covers that issue.

You had another question about weather.

Mr. Rogers: Cold weather.

Mr. Karoles: Well, the interesting thing about maglev is that it is not affected by wind, by rain, by cold weather, or by heat, not at all. The simple answer to the cold weather is that maglev is just that: it's magnetically levitated and pushed forward by magnetic levitation and doesn't run on the rails that it surrounds.

Mr. Rogers: Thank you very much.

The Chair: Thank you, Mr. Rogers.

Mrs. Sarich.

Mrs. Sarich: Thank you very much, Mr. Chair. I was just very interested because we did have one proponent come to the standing committee, Bombardier, and their example, that they cited, was one that's in Russia right now because of the cold weather. My colleague has attempted to ask the question about the cold weather, and I'm just wondering if there are any other implications about this technology. Certainly, the different technology that was proposed by Bombardier had to make some serious adjustments for the cold weather, to push snow out of the way. I think for Albertans to really understand your technology, it'd be important, maybe, if you could take a little bit of time to highlight a little bit more about that so that they could appreciate what it really means. That's the first question.

The second one is to swing back to the right-of-way. Just scanning very briefly in your presentation materials, you're looking at the rights-of-way along the QE II on both sides. Landowners, city development – it's not a straight line. It has hills and valleys and curves and things like that. Again, with this type of technology the usage of land, the spread of that right-of-way gets complicated as you come in and out of large cities, small townships. People, from a landowner perspective, need to really understand what it means with this technology that you're bringing to our attention this evening.

6:50

The Chair: Mr. Karoles, I know this is a loaded question, and our time is up. Can I ask you to be brief or, if you can, reply by writing to the committee clerk's offices?

Mr. Karoles: Well, I realize you haven't had a chance to read the material, but I do answer both of those questions in the material. Or we do, not me. We do.

Simply put, the right-of-way occupation that our elevated guideway would require is 11 and a half feet wide. So out of a right-of-way with 25 or 30 or 100 feet we'd take up 11 and a half. We'd run the rest of the platform, as it were, 11 and a half feet wide in the same direction as the right-of-way. So that's a very simple proposition.

What anchors the pylons or the stanchions, however you want to call the pillars? We go down to the basis of the solid geology. So we don't just plant an 11-and-a-half-foot-wide platform along the surface of the ground. We go down much further than that for safety reasons.

Now, you had another question.

The Chair: Thank you very much. We just ran out of time.

Mr. Karoles: Well, I just want to offer to anybody who has not read the material: when you get a chance to read the material, if you have further questions, please get back to me, and I'll give you an answer in writing.

The Chair: Sure. Great. Thank you. Mr. Karoles and Mr. Washington, thank you very much for your presentations.

Now I would like to invite our next presenter, Mr. Kurtis Ewanchuk. Again, sir, please introduce yourself for the record. You have 10 minutes to make your presentation and five minutes for questions from committee members.

Kurtis Ewanchuk

Mr. Ewanchuk: All right. Greetings, all. I'll try to speak up so everybody can hear me.

My name is Kurtis Ewanchuk, and I thank you for allowing me to share my perspective with you today. As a student of ecological economics it appears to me as though the current model of development that we are operating from in this province is one that is resulting in the prevalence of the phenomenon known as uneconomic growth. Uneconomic growth can be understood as increases in the size of the economy which lead to a decline in the quality of life of its agents. That's us, the citizens.

I propose that the economic growth we are pursuing is actually being forced upon an interrelated set of systems that have reached their natural limits and that we are now in a state of overshoot. What this means in simple terms is that the increases in production that we are getting, whether they be oil, houses, iPads, come at an expense in resources and well-being that are worth more than the yields gained. Some of you might be asking yourselves: did this guy just suggest that economic growth isn't necessarily the best thing ever? My answer to this is yeah. Our priority as Albertans at this time and place should be to put in place the institutions and infrastructure that will assist us in the transition towards a steady-state economy.

How, then, does the question of transportation policy fit into a prognosis of economic degrowth, where we aim to maximize happiness and well-being while reducing consumption? Well, much like how the continued pursuit of economic growth here in Alberta turns out to be dysfunctional for us in practice these days, the automobile as the answer to the transportation challenges we are faced with is also insufficient. The primary reason for this is that both economic growth and car-dominated transportation networks can only thrive in a socioeconomic environment where conveniently stored, high concentrations of easily harnessed energy are available at affordable financial and ecological costs. As the days of cheap liquid hydrocarbons are at an end, it is vital that we invest what nonrenewable resources we have left in postcarbon, low-maintenance systems of vital public infrastructure.

So we come to the central thesis of my position regarding transportation policy and high-speed rail for Alberta's future. Given the context of peak oil and climate change as major drivers of profoundly different local and global economic realities the government of Alberta should employ all measures available to dissuade single-occupancy, fossil-fuelled automobiles as our dominant form of transportation. That a dedicated passenger rail system through the Edmonton-Calgary corridor would be part of such a prescription is beyond a doubt. This being said, the techno-industrial character and the socio-political parameters of such a rail line and any other new rail networks are very much open ended.

It is on this note that I would like to suggest three principles that may guide us as we start to build the best darned rail system network for Alberta possible. The first of these is rehumanization. As a permaculturist I strive not to get mired down in the negative and instead see the problem as the solution. So when I observe many of my fellow Albertans snarled up in the daily commute, moving at a snail's pace in dangerous road conditions, each isolated from the other by tons of plastic, metal, and unhealthy fumes, I cannot help but envision warm, spacious, and smooth-riding trains. On these trains we may relaxingly drink our coffees, read our newspapers, and pleasantly chat to and from our destinations. On these trains I see the potential for a more meaningful interaction as citizens, where in the shared space of public transportation Albertans engage with one another and, in so doing, explore and get about solving the problems plaguing our province and planet.

By valuing rehumanization, we can create a province in which the automobile takes a back seat to bicycles, trains, buses, and, of course, our own able feet. Such a province is one in which we will slow down to rediscover the joy of face-to-face conversations with our fellow citizens in our increasingly compassionate and democratic civilization.

The second quality I feel needs to be emphasized is that of conservation. With conservation in mind we can begin a design process that seeks to work with our emerging reality of a decline in available net energy. Over the last 67 years, pretty much since Leduc No. 1, we have seen at least a tenfold decline in available net energy. What this means is that we are going to have to get used to doing more with less. So my recommendation is not only to choose those technologies that demonstrate the highest per passenger-kilometre efficiency but also to favour a system that can be maintained locally with minimal energy and resource inputs over the long term.

Orienting design decisions at an early state around conservation grants us tremendous leeway in other stages of design, use, and repair, and I do believe that utilizing small and slow solutions, prioritizing for renewable energy and resource use, and doing our best to produce zero waste is a good start. If on a minus 20-degree day I can build a house that draws no resources from the grid but instead relies upon passive energy from the sun to heat the living space, I am certain that we can innovate a system that will last for centuries and all the while produce an absolute surplus of reliability, comfort, and integral efficiency.

The third and final concept I would have you integrating into your deliberations is that of decentralization. Given our society's penchant for centralized control and the scale at which we have become accustomed to managing resources and people, planning for decentralization may seem counterintuitive. However, I believe that a high degree of local ownership, administration, and operations will yield an Alberta passenger rail system with transparent decision-making, high morale amongst the users, and clear-cut accountability.

Though the provincial government needs to take the lead role in putting forth the policy apparatus that will funnel priorities away from automobiles and towards passenger rail, I think it is a worthy endeavour to build upon the existing strengths of regional transport while addressing the weaknesses therein with bottom-up solutions rather than top-down ones.

An example of such decentralization may be an Edmonton-Calgary line that is simultaneously developed with a distributed, renewable electrical grid. With the urgent need to transition away from coal-fired electricity, we have an opportunity to tie any first stages of passenger rail to the backbone of a renewable electrical

grid where generation, storage, and transmission infrastructure are hand in hand.

Whether it be through intergovernmental or even public-private partnerships, any surpluses generated as a product of new rail and electrical infrastructure could be reinvested in building further grid and further passenger rail network.

7:00

The dominant paradigm of economic growth is failing us. Though our vehicles may be more numerous and have more extravagant features than ever before, we are compromising our democratic foundations and the very potential for our children to live lives of material sufficiency. Let us implement regenerative human settlement patterns where rehumanization, conservation, and decentralization inform the methods by which we go about meeting our needs. To adapt to the crisis humanity is in, not only must we think deeply, but we must also find the fortitude to act without further delay.

Within the modern religion of progress we are told by the priests that the market is our savior and that our savior acts by the grace of an invisible hand. Call me a heretic, but I do not take this story as true, for what I see is that if a resilient passenger rail system is to be built in this province, it is going to be built by Albertan hands, and they are very visible. As elected representatives I think that it is your hands that must be the first to act, and if you need an extra set and any help along the way, many people such as myself are willing and able to get a good start on getting the things done that need to get done.

Thank you again.

The Chair: Thank you very much.

Mr. Ewanchuk: Was I under 10 minutes?

The Chair: Right on time. About 40 seconds left.

We have two questioners. Mr. Rogers.

Mr. Rogers: Thank you, Mr. Chairman. Thank you for taking the time to come and share your thoughts with us this evening, sir. I'm trying to get a sense of where you're coming from. Forgive me. Are you suggesting that we should look at scaling back our current economic growth model? If so, would high-speed rail help or hinder this view going forward? Basically, I'd like to know: are you in favour of developing a high-speed rail system?

Mr. Ewanchuk: Economic growth definitely is something that should not be our modus operandi at this point. I think that many other paradigms, including degrowth, offer much more to us over the long term. I'd be happy with a medium-speed rail network. I mean, I think that we have a fetishism in this culture to obsess over the sparkly gizmos and gadgets and newfangled technologies, but when it comes to principled action that is going to be useful over the long term, I think that if we go with a system that is well proven and resilient in the face of all of the crazy stuff that we're going to see over the next few centuries, that's a better option than necessarily the fastest.

Mr. Rogers: Thank you.

The Chair: Thank you, Mr. Rogers.

Mr. Dorward: Young man, you're outstanding. You're like a hippie from 1969. That was me in 1969, but we didn't have the tools back in 1969, so we kind of just zoned out. But you have the tools, and you've done a great job of presenting a hypothesis here regarding, you know, permaculture ethics, as in the handout that we got. I just went to the website and saw some more of that.

The hypothesis regarding steady-state economic growth: is that . . .

Mr. Ewanchuk: Steady-state economic theory, basically.

Mr. Dorward: All right. Economic theory. A lot of the problems we have in Alberta are population based. We had 120,000 people move in. Is it possible to differentiate between the demand for economic growth through population increase and the demand for economic growth through a normal situation where there isn't population growth?

Mr. Ewanchuk: Yeah. We need to rethink the whole darned thing. As it applies to population, whether we're looking at a global population or whether we're looking at a carrying capacity of our watersheds in this province to support human existence at whatever level of standard of living, we've got a lot of work to do. That question is a huge one, and there's no way that I can even begin to address all of the tangents that go along it.

Mr. Dorward: Mr. Chair, have we got another supplemental?

The Chair: Sure.

Mr. Dorward: Do you have any sense of having a fear that if we did try to ratchet back, if I could use those words, the rest of the world would just sail on ahead? If I had applied, for example, some of your concepts, if I had had the tools in 1969 and we kind of froze the world at that time, because a lot of the things you say – I mean, I really wasn't kidding – were things that I felt in 1969, if we had hung in there in 1969 with the world at that stage . . .

Mr. Ewanchuk: You should have.

Mr. Dorward: . . . what would we look like today?

Mr. Ewanchuk: We would be at a point where climate change isn't going to kick our asses. We would be at a point where peak oil isn't creating artificial demand. We would be at a point where human existence, though we may not have all the gizmos and gadgets and what have you, would be much more resilient and not facing the potential for absolute catastrophe in the next hundred years.

Mr. Dorward: Thank you.

The Chair: Thank you very much.

Any other questions?

Mr. Ewanchuk, thank you very much for your presentation.

Mr. Ewanchuk: Absolutely. Thank you. Oh, one more thing. Sorry.

The Chair: Yes.

Mr. Ewanchuk: I gave a little DVD. If you all are, like, superconfused by what I've said, feel free to contact me, and we could watch the DVD together because it's superinformative and awesome.

The Chair: Great. Thank you.

Now I'd like to invite Mr. Bruce English to make his presentation. Mr. English, please introduce yourself for the record. You have 10 minutes to make your presentations and five minutes for questions.

Bruce English

Mr. English: Great. Thank you for hearing me today. I'll begin by telling you that I'm pro. This has been a topic that has been bandied about for many years, and for one reason or another we've chosen not to go forward with it.

I've got five quick points I want to make. I'm not certain there will be any questions. The points I'm going to make aren't open for debate. They're fact. We're going to go through the history. I'll talk briefly about the safety, the environmental impact, the economic benefits to both cities, and then, finally, the technology, leadership, and innovation nationally that we could provide.

On the history note, the first such system began operations in Japan in 1964. This is widely known as the bullet train. It was approximately 50 years ago, so this isn't new technology. We're not early adopters. Systems are in place in China, France, Germany, Italy, Turkey, South Korea, and Spain. Most of these trains range in speed from 200 kilometres an hour up to 300 kilometres an hour, but some are capable of speeds up to 575 kilometres an hour.

Accidents on these modes of transport are rare, and they're usually not directly related to the speed of the vehicle. The safety on highway 2, for all of us, is something we should consider. Think about how many cars would be removed from that road daily. Now, these former drivers that aren't on that road and are riding that train are now safer on the train, and the remaining car and truck traffic, which we know is increasing all the time on highway 2, is safer also with the resultant decrease in congestion.

As far as environmental impact goes, the studies are in. Regardless of the particular technology that's chosen for a high-speed rail train, or an HSR, it's more efficient and therefore easier on the environment than vehicle or air transportation. Ask yourself: couldn't the province of Alberta use some recognition in the eyes of the world right now for an environmentally conscious initiative given the black eyes that we've received in the press over our nation-leading emissions, our pipeline leaks, and the resistance that we've encountered to the Keystone pipeline?

7:10

The economic benefits to both cities. Depending on the speed and the schedule that this train may take, it's going to enable inter-city workforces. This could conceivably mean that one could live in one city and work in another. They'd have a productive, safe, environmentally low-impact commute, very similar in length to a major Calgary or Toronto commute of approximately 75 minutes.

Also, there would be an increase, I believe, in tourism to northern Alberta, Calgary being the air hub for Alberta and Edmonton largely being treated as an outpost as far as air traffic goes. It'd be an easy train ride for tourists to Alberta to come up to Edmonton as well.

Finally, the technology, leadership, and innovation. As I said, we looked at the feasibility of this previously and for one reason or another chose not to proceed with it. We have an opportunity in front of us in the rich tradition of western Canada to blaze a trail here and act as technology leaders and as an example to the rest of the country. If not Alberta, then who? As far as haves and have-nots go, we're the have province in the country, right? If not now, when? I'm sure we can all agree that the cost of this project is not going to decrease in the future.

That's all I have for you today. I just wanted to make my points known. Again, I'm not an expert on the topic, so I don't think it'll serve any of us for me to field any questions. I just wanted to make my views known, and hopefully it resonates.

Thanks.

The Chair: Thank you very much.

The next presenter that I have on the list is Mr. Adil Pirbhai. Is Mr. Pirbhai here?

Now I'll move to the next presenter, Neil Hryciw. Did I say it right?

Mr. Hryciw: You're pretty good.

The Chair: Okay. Well, the floor is yours, sir. Again, please introduce yourself for the record, and you have 10 minutes to present and five minutes for questions.

Neil Hryciw

Mr. Hryciw: Thank you, Mr. Chairman, members of the committee. I'm here today on just my own accord, myself. I'm also representing probably two dozen people that I've talked to about this issue, so consider my views Joe Public's because that's really what they are. All in all, the people that I've spoken with – I don't know if it's statistically meaningful, but as far as I'm concerned, it's relevant, and hopefully it's comments that you've heard in both Calgary and Red Deer.

Of all the people that I've spoken to – and my views are the same – there's really no one that's seriously a proponent of pursuing high-speed rail in Alberta although there's always, you know, discussion about: yes, there are benefits, whether they be economic, construction, that sort of thing. The downside is that we're already having problems finding people in skilled labour positions, whether it's construction, engineering, that sort of thing. I don't know if that's as big a benefit as it really should be, what this is all about.

I've always heard that there's not nearly a high enough population in Alberta. We're about 4 million people, and we've got to look at the practical issues of this. I believe potential users of high-speed rail – where are they? We haven't really heard from them. I don't know if you have. I guess what it is is that there are a lot of loud demands for other infrastructure projects, whether that's twinning a highway to Fort McMurray or some other major projects. There are loud voices there, and those are people that feel strongly about needing certain other projects.

As far as tax dollars, yes, I understand that the idea here is not to have any tax dollars, but I think you have to look around North America, for a start, and ask yourself: where is high-speed rail now? Where should it be? Quite obviously, it's where the population is. Japan is smaller than Alberta, and they've got a population of – what? – 125 million people. Well, that's where the people are. That's where it makes sense to have this type of system.

In terms of North America, to me, it would only make sense that it would be in the northeastern United States or in Ontario, Quebec, where you have a high density of population. You just don't have that here. California has a greater population than all of Canada. They're starting to look into that. Well, look into it a little deeper, and you'll find that there's a lot of criticism about that system in California.

I spent a brief amount of time on the Alberta High Speed Rail website. Now, I know that's only one potential group that would be interested in building this, but I have very serious reservations about some of the statements and projections that I saw on that.

Projecting three million passengers per year that would travel between Edmonton and Calgary? You know, you break those numbers down a little bit, and they're talking: okay; 32 trips between Edmonton and Calgary every single day of the year. That would be about 250 people riding each and every train, every day

of the year. Stop and think about that. Every hour between 6 in the morning and 9 at night there are going to be 250 people getting on every train? I have a very difficult time believing that. If that's one side of the equation and that's the demand for it or potential demand, someone's come up with these numbers. I don't know where they came from, but I'd like to see how they got there. So then that's the revenue side.

Is that going to keep this sustainable, the billions of dollars that it would take to build this? I read there are estimates between $3 billion and $20 billion. Well, I would certainly lean towards the high end of that because if Edmonton is looking at $1.8 billion to get an LRT from halfway across the city – I understand it's much different, with different numbers of stations and whatnot, but here with high-speed rail you're looking at precision, you're looking at safety issues, so there are high costs associated with that as well.

One of the other things is, you know, some of the costs and projections. It's already been brought up, and I'm glad to hear it because something that I was concerned about is: are there high-speed rail systems in northern climates? That's more cost. I've got some experience in construction and development projects, and it doesn't take much before all of a sudden there are some geotechnical issues and: oh, geez; we didn't realize that there's all this poor soil, and now we have to truck all that out, and all of a sudden, costs. We know that there's potential for those costs to go huge.

Like I say, the other side of it is the revenue. What's going to happen if one of these companies builds and gets a system up and running and all of a sudden the ridership isn't there? Then what's going to happen? Where are they going to look to for help to bail them out, if you would? To me, that doesn't make any sense whatsoever.

I would recommend – the potential here to save billions of dollars would be to have opponents of this project get a study. I've written reports. I've done research and written reports. There are always two sides of that argument. If the proponents are coming forward and saying, "Oh, yes; we know that there's going to be this many million riders and that it's going to produce this many million dollars and that it's only going to cost this much," well, I can commission a report and go counter to that.

I would suggest, you know, that be done, and then scrutinize both reports from both sides, and then make those findings transparent and open to Albertans. That's when you should also ask them what they think, once there's true information scrutinized. As far as I'm concerned, that's kind of where this process should go.

Thank you very much.

7:20

The Chair: Thank you, sir. Thank you for your presentation. I have two questions for you, starting with Mr. Rowe.

Mr. Rowe: Yes. Thank you, Mr. Chairman. Thank you very much for the presentation. Over the course of this process we've had more than one presenter that would agree with you, that the population is not in place yet to support it. However, would you agree that we should start planning for that now, perhaps, obtaining the corridor and the land to do that at some point in time in the future now, while we're talking 2014 dollars, not 2025 dollars, and those types of things? Would you agree that that's a useful exercise to go through now?

Mr. Hryciw: Mr. Chairman, I would respond to that by saying that first of all, when you say "should we," I'm not sure who that "we" is yet in planning that right-of-way, the acquisition. I think of the utility corridor where the ring road now circles Edmonton and Calgary, for that matter. You know, I think that was probably 30 or 40 years in the planning – I understand that – and here now we're finally getting a ring road. So in terms of that, it makes some sense, but who's the "we" in order to put that together. As soon as you start — I think we're a little ahead of the game in wanting to make that commitment until we have more meaningful numbers. Like I say, get the opponents' report; get the proponents' report; scrutinize them. You know, where are these numbers likely to land? Then ask Albertans: should we really start establishing a department that moves that forward?

Mr. Rowe: Thank you.

The Chair: Thank you, Mr. Rowe.

Mrs. Sarich.

Mrs. Sarich: Thank you very much, Mr. Chair. I'd like to thank you for your presentation. Your group sent you in to be the representative of them all, and even though it's only two dozen, well, it could be 200 because there are, certainly, most likely, Albertans that would subscribe to some of the points that you brought to our attention this evening.

I would like to explore or have you explore — you had mentioned loud demands for other infrastructure, and there was a question about the level of readiness because as you look to the future, we're not sure what the technology of choice for transportation is going to be by any population. But do you believe that there is an expectation for the government of Alberta, from an Albertan's point of view, to look to that future, plan for some other modes of transportation? So if it means the securing of land for whatever the technology would be – I think there was a question trying to get you to respond to that. Or what other priorities for infrastructure do you see, you know, for big cities like Edmonton or Calgary or other communities that are on that cusp of becoming bigger or larger metro centres in the future?

Mr. Hryciw: Well, I don't think that I'm here to bring forward any other ideas of other projects that I would champion or others. You know, that's another discussion. But you don't have to read too many newspapers to hear what people are suggesting in terms of what's a priority, whether it's health care or transportation or economic, what we can do to have economic development. I don't disagree that there has to be, well, this committee. We have to consider what's out there, but let's not lose sight of the simple question of: is this practical for this province?

I understand that to acquire the right-of-way from downtown Edmonton through Red Deer and into Calgary would be cheaper than it would be to go from downtown Montreal, Ottawa, and into Toronto, that land cost. But, well, a similar sort of thing has happened in Europe, in Japan, in those places. That's kind of my big point. If the demand is there for this system in Alberta, well, okay, it's going to work.

The Chair: Thank you very much, Mrs. Sarich. Thank you, sir, for your presentation.

Now I would like to invite Mr. Adil Pirbhai. You're ready? Sir, please introduce yourself for the record. You have 10 minutes to make your presentation and five minutes for questions.

Adil Pirbhai

Mr. Pirbhai: Thank you very much. Hi. My name is Adil Pirbhai. I live in Edmonton. Before I discuss the high-speed rail, I'll be off topic for just a minute and a half. I would like to begin by saying

that those of us who are progressive and on the left side of the political spectrum supported Madam Alison Redford in the last election because she made a commitment to the people of Alberta that she wouldn't use any tax dollars on the hockey arena. Thank you.

Mr. Chairman, we are a group of 10 people. I am an accountant, and we did our research on the high-speed rail. We support the project on the condition that the government will not raise our taxes to the payroll. We believe that it will create 100,000 new jobs for this project in Edmonton and Calgary. We also believe that it will create more than 250,000 jobs but indirectly when this project is going through.

The government must ask the business community, the provincial government, and the federal government to help us with this project. We are confident that the progressive mayor of Calgary will support this project. Many of you are aware of the high-speed rail which was just completed in the U.K. and France. I have disagreed with the former Prime Minister of the U.K., Tony Blair, and the former president of France, Jacques Chirac. There was one good thing that these two men did, to build high-speed rail between the U.K. and France. It has created more jobs in both countries, visitors around the world. If you are a visionary, in the majority of the EU countries, from Spain, Germany, they have high-speed rail. Visitors around the world use this mode of transportation, many visitors, including me.

I was just in the U.K. My sisters live in the U.K., and I crashed their house, just to visit them. I asked them about this high-speed rail. We, as a family, went on the high-speed rail. It was brilliant. It was about an hour and a half just to go to France. I spoke and my sister spoke to many people on the high-speed rail, and they said that in the beginning there were so many naysayers on this project, and if you look at it now, it is being auditioned worldwide. People are going. People are using this high-speed rail.

7:30

We believe that many residents of Edmonton and surrounding areas, including Red Deer, and most people from Vancouver, British Columbia, Manitoba, Saskatchewan will use this mode of transportation. Most visitors will also come to Edmonton and Calgary, specifically visitors from all over the world, like during the Stampede. They will also come to Edmonton, and they will visit the Taj Mahal hockey arena, the high office towers, and the Alberta museum that Don Iveson said that most visitors will come and visit.

We believe that this project should move forward, and I would also like to urge the members of the committee and Premier Alison Redford that should this project move forward, the last thing we want to hear from any politician is: I built this; I built this. We keep on hearing even in the civic election and from the provincial government: I built this. No; it was the taxpayers of Alberta who built this.

In conclusion, let us move forward because it's a good project. All the naysayers: I say that they are not progressive. Thank you very much.

The Chair: Thank you, Mr. Pirbhai. I wanted to assure you that this committee is a committee of the Legislative Assembly. It's an all-party committee, and it's not directed by the government of Alberta. It's directed by the Legislative Assembly.

Now we have two questioners for you, starting with Mr. Luan.

Mr. Luan: Thank you, Mr. Chair. I want to congratulate you for standing up and speaking for the group that you represent. I can assure you as a committee member on this, hearing the public input from Calgary, Edmonton, and Red Deer, that to a very large degree proponents are all over the place. The beauty is that when you speak, you add to the width and depth of the understanding of people's takes on this.

I just want to double-check if I understand you correctly. You're saying that as a taxpayer you 100 per cent support this. Are you willing to put your money onto the table versus some people who are saying, "Don't use taxpayers' money, but purely have a company do this"?

Mr. Pirbhai: I don't think that the taxpayers should be asked to pay for this project. What I would like to see, for example, is like how the government in Ottawa has gotten $14 billion for infrastructure programs over 10 years. Maybe we can ask them. The Premier can ask them. What I would like to see is that we do not compete, because if we are in a competition with WestJet and Greyhound, the prices should be lower than WestJet and Greyhound. If you're going to have similar prices, I think people won't use the high-speed rail. As a taxpayer, when we have serious problems in health care, I don't know.

Mr. Luan: Through the chair, if I can interrupt. Maybe I'll just rephrase the question. Some people are saying that this is for private enterprise, let them do the business, and don't interfere. Others are saying that this is a public infrastructure investment, so taxpayers' money has to be part of it. In between are partnership ideas and so forth. My question to you is: as a taxpayer, from the group that you are speaking for, do you stand by a part of your money, which is taxpayer money, which is government – federal, provincial, municipal, all represented – and do you want a portion of that money into this?

Mr. Pirbhai: Yes. It will bring more visitors to Edmonton, more visitors into Calgary. They will visit Banff, Jasper, Calgary, and more people will come to Edmonton. Like I said before, they will come and visit Edmonton: Alberta museum and the Taj Mahal hockey arena and the high office towers.

Mr. Luan: Okay. Thanks.

The Chair: Thank you, Mr. Luan.

We have two questions and less than two minutes. Mr. Rogers, please.

Mr. Rogers: Thank you, Mr. Chairman. Mr. Pirbhai, I thank you for your presentation. My question was similar to Mr. Luan's, so I won't repeat it. It seems to me you think that maybe this should be built as some kind of a P3, maybe a partnership, maybe some private, some government, if we can get some federal funding, a combination of those.

Mr. Pirbhai: I would like to see a private business run this project. I would like to see the business community also contribute to this project. I just gave the example. If you look at the U.K. and France, it was all levels of the government that contributed. It is now being run by a private business.

Mr. Rogers: Okay. Thank you very much.

My final piece to that, Mr. Chairman, is that you mentioned that you think it would need to be subsidized, that the fares would have to be subsidized to encourage people to use it.

Mr. Pirbhai: Yes, I agree. Yes.

Mr. Rogers: Okay. Thank you.

The Chair: Thank you.

Mr. Dorward: Well, I don't so much have a question as a comment. Those of you from out of town or those listening would maybe not know that Adil is involved in the Edmonton area with respect to a number of different issues. I wanted to thank you, sir, for coming here and speaking to us and for all the advocacy you do for a number of different issues. On radio stations I hear you at 7 in the morning and 11 at night. Thank you for coming and presenting to us.

Mr. Pirbhai: Thank you.

The Chair: Thank you very much, Mr. Pirbhai. Thank you for your presentation.

Now I would like to invite Mr. Trevor Thera. Mr. Thera, please introduce yourself for the record. Again, you have 10 minutes to make your presentation and five minutes for questions.

Trevor Thera

Mr. Thera: Sure. Okay. Thank you, Mr. Chairman and members of the committee. My name is Trevor Thera, and I am from St. Albert. I have worked in the public sector in the past, predominantly in the technology and innovation forum, and I currently work in the private sector. But from that unique background I felt compelled to kind of reiterate what some of the folks in the audience, previous speakers, have mentioned and kind of give you an insight on what I've been able to glean from where I had come from on this topic.

I want to give you the background of where I'm coming from, which is not one of the number of jobs or the detailed economics of the issue. I think those can be debated, as we heard, from one way to the other on end. But I think what I'm going to ask you to think about are the types of jobs versus the number of jobs and the types of individuals making a commitment in this area that could call Alberta home.

On that note, what I'm getting at is that the comments of the previous speakers had mentioned items like leadership, innovation, courage. Some have even said: if not us, then who, and if not now, when? I liked that one. I'll give you some background on why I think those are important elements to bring back up again. I think that this is obviously a unique opportunity that's in front of Alberta and Albertans and the leaders of Alberta.

At the risk of being unpopular, I think that we have an opportunity to act in an un-Canadian way. I know it's right after the Olympics, but what I mean by that is that we have a chance to make a big bet, and that's not easy. Those of us who have been to the casinos once in a while: it's not easy to put a big pile of our chips down in one area and hope for the best. I think that another reason why I call it un-Canadian is that whether you look at the technology sector, whether you look at the Olympics, whether you look at whatever it might be, being first is not usually a characteristic that Canadians strive for. It's not in their DNA inherently, I don't think.

7:40

However, I also want to give you another element to think about. This is not about the current technology. To show you that I am a Canadian, it's not about what can be currently done or what is economically feasible tomorrow or what could be built by Bombardier or whomever it might be. It's not about where the puck is; it's about where the puck is going. Of course, that's capturing the part that I am a Canadian.

Where are we going? I think that our ability to enable and foster a place where the world's star performers can come, can live, can work and create enterprise – they can be attracted to the province to drive our society forward. Sure, it doesn't have to be based around this initiative of a high-speed rail system, but I think it's an excellent example of one opportunity that we have before us. We could make it one of these opportunities that, you know, don't come around every so often and is not doable by any jurisdiction you might want to point a finger at. This is one of the few places, like we heard, that it can actually happen.

My additional background on this, where I'm coming from in terms of these points, is that I've had a chance to travel to many parts of the world in my past. I've had a chance to work with the most inventive and industrious people on the planet bar none and to really glean an insight into how some of the most industrious jurisdictions in the world operate and how they became how they became. One thing that is not in Alberta's favour in this respect is, as I like to say, that we happen to be in a fur-lined rut. It's very comfortable. It's happy. It's good. We all are making decent money. Our people are relatively happy, and there's no major knifepoint sticking us in the side making us change or do something bold and different.

However, faced with an opportunity like this, Alberta is one of the few places in the world that does have an opportunity to seize, to leap forward, to lead the future, and not only, you know, in a strict dollars and cents perspective can we make the train profitable. I think the issue is bigger and deeper than that. I think it's a chance to build a platform around where Albertans can lead economically, societally, and environmentally.

Back to my point. You know, we have a chance where we can be bold, where we can be courageous, where we can make a big bet, and that will hopefully be our doorway to our future success.

What does success look like? Well, I think it's more than answering the question whether the transportation network can be profitable or not. I think we can expect big benefits that can come out of science and engineering and spill into our environment, our energy, health, medical, agriculture, forestry, manufacturing, and so on, and so on, and so on. We'll have a strong magnet, a clear message to the rest of the world that we can attract global talents of all types, attract them into our economy and our society, which would alter our trajectory into the future. As others have mentioned, it's a new face to put onto the world in contrast to what we see on *The Nature of Things* often in terms of the oil sands, a.k.a. tar sands, ducks falling in ponds. It's another stepping stone for us to put forward to the world.

As Canadians we are maybe a little bit fearful of failing. Maybe it will be difficult to explain: what if we fail? The people and the goods that are transported in and around Alberta don't change. That's one thing where, you know, we'll know if we failed. But just like I'd mentioned before, I think we can expect big benefits to come out of the science, the engineering, and to spill out into our environment, energy, health, medical, agricultural, forestry, and manufacturing fields. We'll have a wealth of new, talented folks attracted, embedded into our economy and society, and we'll have a brand new face to wave to the world.

Another comment. At the risk of being a little bit more controversial – you guys have known this fellow – what would former Premier Lougheed have said? Some of you might know. He might have had an exact opinion on high-speed rail. But what if he said that no one else currently is getting oil from oil sands and that because of that, we shouldn't do it? What if he said that we don't have all the information we need in order to make a firm decision on whether the research into this area and extracting the resource this way are going to be economically, statistically,

environmentally sound before starting? Again, I use that as an example, but I could have spoken about the human genome research, that was actually started here at the University of Alberta, as well as, you know, the story about Kennedy and the moon and what have you, but I didn't want to be that dramatic.

I'll end by saying that we have a powerful mix before us. We have riches. We have entrepreneurship. We have bright, educated people. We can build on those foundations to, you know, alter the future for Albertans and Canadians. The question is: can we make a big bet on these unique assets and capture an even greater outcome?

The Chair: Thank you, Mr. Thera.

We have a question for you from Mr. Luan.

Mr. Luan: Thank you, Mr. Chair. Again, I want to thank you for speaking up. I particularly find that your futuristic, sort of a bold kind of stand fits so nicely with the mandate of this committee. This is Alberta's economic future, so we have to leap forward when we think in that way. Thank you for that.

I just have a question that I've been struggling with all the way along as I'm listening to all the speakers, not only today but throughout this process. There is lots of support to say that this is a good thing, future behavioural change. Environmentally, socially, economically: it's all indicating positive. Then the other part is to say: "If you are going too fast, too immature, the supply isn't there. You're shooting yourself in the foot." There are people that talk about 10 years ago, that there was a proposal at that time. The population base was 2 million, and now we're 4 million. Some say that perhaps this is the right time, and there are still people saying: "No, no, no. Six million, 8 million, 12 million." What is your take on this? That is my question.

Mr. Thera: Yeah. It's a good question. My take on this is that, clearly, it depends on what you're defining as your key outcome, your key indicator. I think one little step along the way is: will this transit system, which is a little slice in the world, be economical?

I think another way to look at it is: what are the spinoff benefits of Alberta being courageous, like we have been a couple of times in the past, and being able to seize the opportunity to be the very first at developing a mechanism that can revolutionize travel not here but around the world? So instead of exporting bitumen and oil and other wonderful commodities that should all be part of our economy, we can begin to export knowledge and technology. The last point on that is because others will be doing high-speed rail around the world and are, you know, making plans to do so as we speak.

Mr. Luan: Thank you.

The Chair: Thank you.

7:50

Mr. Dorward: Firstly, thank you for the work that you've done in technology and innovation in the past. That's an area where Alberta needs to certainly continue to find ways to get a more diversified economy, away from our resource sector. It's good that you've worked in that area in the past and, hopefully, will continue to find ways to develop that area in the future.

There was a sense of your desire to get going with this. What proportion of the funding do you think should come from the province of Alberta, assuming that you think that there should be some component of the public purse there?

Mr. Thera: I'm not an economist; I'm not even that good at accounting. Luckily, I married one. I will say, though, that I have had a chance to speak to global conglomerates about these types of opportunities, to some of the world's largest defence contractors. I firmly believe that all of them are willing to invest significantly. You know, I think that the right mix in there, a perfect scenario, would be a third from the province to clearly make a statement that we are serious about moving this forward. I have a strong suspicion that the true ratio and everything will fall after that.

Mr. Dorward: Good. Thanks very much.

The Chair: Thank you, Mr. Thera.

Any other questions? Thank you very much.

Now we'd like to invite Mr. Hans Zurcher. Again, Mr. Zurcher, please introduce yourself for the record. You have 10 minutes for your presentation and five minutes for questions. Please go ahead.

Hans Zurcher

Mr. Zurcher: My name is Hans Zurcher. Mr. Chairman and members of the committee, I got involved in that idea very much and mainly because of the hare-brainedness of that idea, in my opinion. I've already coined a very nice acronym for that high-speed rail project, and I call it CREST. It stands for Calgary-Red Deer-Edmonton superfast train. So if I refer to CREST, if I may, you know what it means.

While the idea of being able to zip between our two big cities within about an hour's time sounds so very cute, I cannot see the necessity nor the urgency and, above all, not the profitability of such a grandiose venture.

In the first place, where is the niche that is not already covered by the existing transportation infrastructure? For people in a hurry we already have more than a dozen daily plane flights between the two cities, and for people that don't have a vehicle or are too old or too young to drive, we have quite frequent and quite fast bus connections between these two cities. As for the rest of the QE II users, I cannot see what could possibly entice them to switch from truck to track, especially since you still need additional wheels at both ends of the track to haul yourself from doorstep to destination and around your destination. The problem is that we don't have an efficient short-distance transportation system that could bring you from doorstep to train station and back without much additional expense in time and money, a short-distance transportation system that would act similar to a feeder line of small planes to an airport hub.

Two, Tom Zoellner, who wrote a book about world-wide railway history, says exactly that in a February 1, 2014, *Wall Street Journal* article. He says – and I quote – that bullet trains work only if there are ample transportation options at each destination. End of quote. High-speed trains in Europe and elsewhere are part of a very well-integrated, continent-wide transportation system set together with a very efficient short-distance transportation system that lets you travel from the biggest city to the smallest alpine village without having to rely on taxis or a private vehicle.

Three, ridership projections vary just as wildly as the cost projections of such a high-speed rail. Speaking of costs, I have an article that says that costs could be anywhere from $1 billion up to $3.5 billion. Wow. Think again. The latest information I have says that the costs for high-speed rail world-wide are now around $90 million per kilometre. Multiplied by about 300, that would bring the CREST costs into the $30 billion range.

Four, speaking about profitability, I have an article that says that our CREST could be profitable right from day one. Right from day one. That's BS. BS. The only high-speed rails in the world that break even, barely, are the Tokyo bullet trains that transport about 410,000 people a day. The train from Paris to Lyon transports about 268,000 people a day.

Five, an Alberta government report from around 2008 found that the CREST would divert 46 per cent of airline trips, 35 per cent of bus journeys but only 3 per cent – 3 per cent – of car trips. So a high-speed rail wouldn't relieve QE II congestion, which seems to be one of the main arguments for a CREST link.

Six, energy usage shouldn't be a major argument either in favour of a CREST line, a CREST link, if it's correct what George F. Will says in a March 11, 2011, *Newsweek* article. "The average intercity [car] trip today uses less energy per passenger mile than the average Amtrak train." I don't know. He didn't mention where he got that information from, but it's kind of hard to believe.

Number seven. The big question in the whole high-speed rail debate, according to a September 13, 2010, *Canadian Business* article . . .

8:00

The Chair: Mr. Zurcher, you have one minute left.

Mr. Zurcher: Okay.

. . . might be: "Is the current interest in rail a signal of a major shift in the dominant mode of transportation, or merely a passing fad?"

If our province wants to reserve some land already for a future utility corridor, maybe it should be considered just in case Calgary, Edmonton, Red Deer, and Fort McMurray should become a teeming megalopolis of around 40 million people before the last drop of oil has been sucked out from the oil sands.

The Chair: Thank you. Thank you very much. Your time is up.

Do you have a last statement to make?

Mr. Zurcher: Well, if our province really has billions to spend and it doesn't know what to waste it on, maybe for now we could look into if we could build a high-speed rail link from, say, the international airport to downtown.

The Chair: Okay. We have Mr. Xiao, who would like to ask you a question.

Mr. Xiao: Thank you, Mr. Chair. I just want to ask Mr. Zurcher to finish your last statement. That's my only question.

Mr. Dorward: A summary statement?

Mr. Xiao: I would like to ask you to summarize your statement. Would you like to do that?

Mr. Zurcher: Summarize?

Mr. Xiao: Your statement.

Mr. Zurcher: Too expensive; not enough people; better solution, like building another lane on the QE II; and not the right time yet.

Mr. Dorward: Well, thank you. You're very practical in your assessment, and I thank you for coming tonight.

Are you in favour of light-rail transit within the metro areas of Calgary, Edmonton, and perhaps other cities?

Mr. Zurcher: Oh, definitely, but it should be done better. I don't know if they would do it the same as the high-speed rail, where we have level crossings, like in our city. You see a few thousand people zipping by in LRT vehicles, and about 50,000 to 100,000 cars have to wait and idle, belching bad stuff into our air. I'm in favour of LRT. That should be done first. If people would see that they have the short-distance transportation, they might be interested in high-speed rails.

Mr. Dorward: Thank you for coming, sir.

The Chair: Thank you very much, sir.

Now I'd like to invite Mr. Leo McCarthy. Again, sir, please introduce yourself for the record. You have 10 minutes to make your presentation.

Leo McCarthy

Mr. McCarthy: Yeah. My name is Leo McCarthy. I'm on the board of directors of Tom Lukaszuk's board and also the MP's, the federal board. I first got to know about the mag train when I was watching the Discovery Channel, and I saw the mag train, and he compared the mag trains and the steel rail trains to a horse and buggy. We've got to get off the rails and get a mag train because it's the safest mode of travel and the fastest way to get somewhere.

Now, I went to a convention in Calgary, and on the way down I noticed how heavy the traffic is on that highway to Calgary. They're going to have to make a four-lane highway down there one of these days because it's getting very crowded on that highway. I got a rock through my windshield on my way down there. During the meeting down there one of the people mentioned that we shouldn't build a high-speed rail, and they said: "Well, if Mr. Macdonald had thought that a long time ago, we would never have put that railway across Canada, from coast to coast, because there's no population out there. There is nobody there. Why should we put a rail there?" Hearing this, now that the population isn't here yet – but it's coming. Twenty-thousand people a month come here for jobs.

I watched this program on TV about the mag train they built in Germany . It's up off the ground. It's not on the ground like a railway is. Maglev rides on air, and it's 500 kilometres an hour. They tested that train. They built one in Shanghai. They had to dig down until they hit granite rock or solid ground. They can't just put it there – here in Alberta it's the frost – but there they had to build it down in the ground because of earthquakes, and they move lots of people there now.

Alberta's population is going up all the time. There was one time they were going to build a roundabout in Edmonton, but they waited and waited and waited until the population grew in the area where they wanted to build this roundabout, and people then didn't want that roundabout run through their neighbourhood, so you can't wait five or 10 years to build this thing. You start looking at doing something now.

Now, the corridor between here and Edmonton is open all the way down the centre of the highway. The high-speed train would go right down the centre. It takes me three hours to go to Calgary. I burn a tank of fuel going to Calgary and back, and I've got to get a hotel while I'm down there. If I could go to Calgary in half an hour and be back here the same night, it would be great, but the high-speed is the only way to go and a mag train because it's much safer.

The thing they said about the high-speed rail train, the one that Germany built: it travelled at a high speed, but the trouble is that steel on steel causes friction, and friction caused a steel wheel to split in two, and that high-speed train left the track, killing many

people and people that lived by the track. I don't know how many people were injured, but the rail got sued. It's a lot of money.

This train, the safety record is pretty good. The only thing this mag train hit on the one they tested it in Germany was – the maintenance vehicle got on the track, and somebody didn't inform them that they were on the track. That's the only reason people got killed. But if it's off the ground, you're not going to hit a transport truck, a moose, a deer, or anything else on the track because you're not going to be – on top of the track, you're over top of everything, so it's much safer at high speed.

You talk about going to Fort McMurray and Calgary and Lethbridge, but that's a long way. Imagine those oil companies that spend all that money just transporting people back and forth. My brother-in-law and my next-door neighbour did it for years and years, going back and forth on those buses, five-hour, six-hour trips. It's just a long time. It would be nice to go down to Calgary for a meeting in the morning and be back in the afternoon for lunch. It's a much better means of travel.

It's not affected by weather. I've seen the test they did on the trains in Germany. I've seen the one they built in Shanghai. They wanted to know if two trains going by each other doing 500 kilometres an hour would be affected by the wind. Apparently you don't even feel the movement in the train. Now, I know Thomas told me that he went on that train in Shanghai. It's a very nice ride, and it's the wave of the future.

We can't sit back and say that, well, the population isn't here right now. We don't wait until the population gets here. We should do it before they get here. If it's private money that's going to do it, investments should be doing it, not the government. They always say that government shouldn't get into business, anyway.

It'd be nice if our football and hockey teams could travel back and forth to Calgary on a nice train, go to Edmonton and play football or play hockey, and they could move down here and have their own cars and stuff like this with their own logos on it. It'd be great.

With the mag train, there's no – on buses and trains, where there are wheels, there are bearings, there's grease, there's oil, they're burning fuel, whereas a mag train doesn't burn this stuff, so it's environmentally safe. All these environmental people are worried about the environment. It'll be great for the environment. Seeing how our gas and oil isn't going last forever, somewhere down the line we've got to switch over to this kind of mode of transport.

8:10

Now, talking about the rapid transit in the city here, Edmonton and Calgary are spread out so much. I cannot take a bus to work because I would have to get up two hours earlier to get a bus to get to where I've got to go to work. I drive a truck every day. The road that I drive is – I go up to Nisku every day, Leduc twice a day, and there are oil tankers going up and down that line. That line is very busy now. I wouldn't want to see a high-speed train on that line because you'd never go anywhere. It has to be an individual line that is just high-speed train only on it.

One more thing is that I wouldn't want to see Bombardier build anything for us here. I'd rather see us build these trains, make a factory here in either Red Deer, Calgary, or Edmonton that would put these trains together here. I know in the States they're already talking about building a line from Boston to New York because, you know, at Christmastime people get frozen in on the planes, and they can't move anywhere because there's a snowstorm and it's Christmastime. They're sleeping on the benches at the airport. So it'd be great to have a high-speed train to move people around.

The other thing is: talking about a plane going to Calgary, well – Calgary used to have an industrial airport here we used to use. But you have to go two hours before your flight time. It's a half hour, 40-minute drive to the airport. Then you've got to sit out there for two hours to get a flight to Calgary. Same thing coming back. The high-speed train would eliminate all that stuff, so it'd save you a lot of time.

The Chair: Thank you very much, sir.

Any questions?

I guess not. Thank you.

Now, I believe that one of our presenters has not been able to make it tonight, so we will move to the next presenter, Mr. Sebastian Macovei-Benczur. I hope I said the name right. Please introduce yourself for the record.

Sebastian Macovei-Benczur

Mr. Macovei-Benczur: Good evening, honourable committee. My name is Sebastian Macovei-Benczur. I am a civil engineer.

The Chair: You have 10 minutes for your presentation and five minutes for questions.

Mr. Macovei-Benczur: Yes. I'll try to be brief.

I might repeat what already has been said here. I'm an Albertan for 16 winters. I first touched ground in North America in Calgary. After two hours I boarded a very small plane, and I flew to Edmonton. As a professional civil engineer I have a background of roadwork, railway, and bridge construction. As I was flying towards Edmonton, I was laughing and crying at the same time because – I don't know. You guys who are born here and live here for so much time, you don't see the difference. When you're taught in school to build a road, you're taught to build curves and uphill and downhill, and it looks like a plate of spaghetti. In Alberta somebody took a ruler, put it on the map, and in five minutes designed the entire road system of Alberta. High-speed train begs, by the geography of Alberta, to be built. It's flat. You have not the population of the east coast. It's just there. Make use of it. I just did not understand how it could be because it's flat.

I've talked with Albertans in these 15 years, 16 years, and, well, I got mixed messages. What I want to say is that coming here as an immigrant, you try to be more aware of what surrounds you. As far as I recall, the Canadian federation as it is now is partly due to the trans-Canada railway. British Columbia put the condition for it to join the federation by having a rail line. Probably after 160 years now we're back in the same position.

Again, coming here and having this background of road-building, I was at the point where I was shocked to find out that for a quarter of the continent, half of Canada, the western part of Canada, the civil engineering departments at universities in western Canada do not have university-level education about building the infrastructure of roads and railways.

It's even worse. In North America, especially in the United States, in the '60s the automobile industry killed the railway.

Now, we're talking about high-speed rail. It should be at least 250 kilometres an hour. I don't know how many of you have taken a personal vehicle and driven from Edmonton to Toronto. Three and a half years ago I did it, and it's an ordeal, ladies and gentlemen. It's an ordeal. In the province of Ontario you are only allowed to drive 90 kilometres an hour. To travel across the continent, which happens to be the country called Canada, it's an ordeal to travel with a personal car, so a high-speed train is something very logical to use.

It is also ecological. If you sit down and you do the proper math and you start to put down numbers to see the energy consumed per pound transported with a personal vehicle – it doesn't matter what that pound consists of – it is way more ecological to have a train that actually uses electrical energy compared to a fossil fuel such as gasoline or diesel.

Now, to have a high-speed train in Alberta means that skilled labour in the workplace will be created which stays put. You will never have railway maintenance or sleeper manufacturers in China doing the work in Alberta. There will be Albertans working in Alberta.

The economic question. Everybody brings up: how many people will travel from Edmonton to Calgary? Well, if you look at it from Edmonton to Calgary, it is a short track and from an economic point of view, having only personal transportation, it's a very tough nut to crack because it might not be economical. However, in other parts of the world they have experienced that on the same track you could have cargo trucks put on railway trucks and being transported.

With high-speed rail being built in western Canada – I'd say Fort McMurray, Edmonton, Calgary, Lethbridge, Medicine Hat, Regina, Winnipeg – you could do that trek in a day in daylight. So you put your fresh-baked goods on in Winnipeg, and you unload them in Fort McMurray.

The most important thing that I wanted to point out is the opportunity. This opportunity is as important as when somebody decided to take a shovel and stick it in the ground in Fort McMurray and decided to take bitumen out of the sand because this opportunity would mean that we have highly skilled labour. We have to train those people, and we'll make the shift from a resource-based mining economy to a high-tech economy. Why do I say that? Because this opportunity will radiate. We will be required to have universities that actually will see what is happening.

To make a proper comparison, it's just like considering to put a man on the moon. If you look at it on economics, it's an absolutely foolish thing. There is no loot. There are no people. There is nothing on the moon. There's not even air. It's just dust, rock, and it's far away and cold. But going to the moon – and it was a very long time ago, and we never got back there – gave us the opportunity to look at technology and try to use best what we have, and that is our intelligence.

Like going to the moon, having a high-speed train will make Alberta a leading province of Canada. My point is that we should consider it as an opportunity for Alberta to take a lead in Canada as a province and to look at it as an opportunity that we have now. I don't know if it will stay with us long enough if we pass on it.

Thank you.

The Chair: Thank you very much.

We have a question for you. Mr. Rogers.

Mr. Rogers: Thank you very much, Mr. Chairman, and thank you, sir. I really appreciate your enthusiasm and certainly your vast point of view. You talked about the energy usage for a private car per pound versus a large vehicle such as a train. I'm just wondering about the electrical production to power such a vehicle. What would the trade-off be compared to fossil usage? For example, here we produce electricity for the most part with coal or natural gas.

8:20

Mr. Macovei-Benczur: Coal, natural gas, and very little hydro: that's Alberta. In southern Alberta you have wind power.

Mr. Rogers: So do you think we'd get enough of a net benefit by producing electricity to run this vehicle?

Mr. Macovei-Benczur: There is no absolute advantage. We always have to look in a positive way, and every situation is an opportunity. In Europe between countries there is a vast grid of electricity. If one country has a lack of electricity, by a shift of a lever, you get electricity from another country. In North America you don't have that. Having a high-speed train which uses electrical energy to travel would put us in a situation to reconsider the electric grid. It could be powered by wind energy from Manitoba. It could be powered by nuclear energy from the United States. It could be powered by electric energy from a source which I do not know but in the future will be different.

Mr. Rogers: Thank you.

A supplemental, Mr. Chairman?

The Chair: Sure.

Mr. Rogers: The only part you didn't address, sir, would be how we might pay for it, how we might build it and operate it. What might you suggest in terms of should the government pay for it all, should we look to private industry, should we tax it, should we subsidize the ridership, et cetera? Any thoughts on that?

Mr. Macovei-Benczur: I made a small point on the economics. If we consider it to transport people only, I am afraid that the numbers won't be in our favour. It will make sense to have it built and in the meantime consider it to transport cargo.

Now, as for the money, to put it up front, I was thinking about it, and I came up with one point that Albertans should consider. It was 10 years ago that the late Premier of Alberta Ralph Klein gave something that for me coming from a different part of the world I found absolutely astonishing. He gave me a cheque for $400. So maybe it's time after 10 years to reconsider it and at least partly to have a public company and ask Albertans to buy shares in it.

Mr. Rogers: Thank you.

The Chair: Thank you, Mr. Rogers.

I know your time is up, but I will allow one more question. Mr. Xiao.

Mr. Xiao: Thank you, Mr. Chair. I'm just curious about your opinion on this. We all agree, I think, in this room that high-speed rail is very convenient. I have had the experience of having travelled the world, and I've had the experience of, you know, riding on various high-speed trains. The maglev in Shanghai: I tried that one. Also, I had experience in Europe and in China as well. But the question is about feasibility. Feasibility relies on sustainability, right? We all probably know that public transit, whether it's in Europe, North America, or any other part of the world, is heavily, heavily subsidized by the taxpayers, including Edmonton, Alberta. Like, every morning when I'm driving my kids to school, if you pass 9:30 and you see the light rail in Edmonton, all the cars are empty after 9:30 – okay? – but during the rush hour they're full. So my question is: how are we going to pay for this, knowing that this type of train is not going to make money?

You just mentioned cargo. You know, I would ask you: how can you make that feasible because we don't have – I bet you the companies, the businesses like Safeway, are not going to be in a hurry to ship their groceries from Calgary to Edmonton by paying

high freight charges. So my question to you is: do you have some specific proposals of how we can make this high-speed rail feasible?

Mr. Macovei-Benczur: As I mentioned before, it's a tough nut. The change in usage from peak hours to low hours is the nature of the beast. I mentioned that we have to consider having a mixed usage of cargo and also human because using it only for human transportation, I am afraid that it doesn't matter how we try to make the numbers look nice, they won't end up in our favour.

For sure it will have a social impact, and I can tell you this impact in an example. I come from an ethnic community, Hungarians, and the closest one from Edmonton is in Calgary. We could never properly make joint activities because we have 270 kilometres between us. Just to attend an event in Calgary is such a large undertaking for a person that it becomes a burden. So to foresee how it will be used, it's optimistic thinking or a good wish. I do not have a rabbit in a top hat. I'm very sorry, but I do not.

Again, as I said, we should look at it as an opportunity like going to the moon. We didn't go to the moon to become rich, but we became rich because we went to the moon.

The Chair: Thank you. Good closing. Good closing. Thank you very much.

Well, ladies and gentlemen, as I mentioned earlier in my opening statements, this meeting will conclude by 9 p.m. I see right now that we have about 35 minutes left. If a member of the audience wishes to present but did not register in advance, there is time available and the committee would be pleased to hear from you. Please move to the presenters' table and identify yourself for the record. Remember that you have 10 minutes to make your presentation and five minutes to answer questions.

Deryck Webb

Mr. Webb: Good evening everyone. My name is Deryck Webb. I'm an operations supervisor at the National High Field Nuclear Magnetic Resonance Centre at the University of Alberta. I have some experience in some of the technologies that I'll talk about. I'm very encouraged by the statements that I heard this evening regarding magnetic levitation and entrepreneurship within Alberta. Thank you very much for this opportunity.

Having travelled extensively in Europe and living in Japan for a number of years, I've come to appreciate and understand the value of transportation infrastructure at the municipal, provincial, and national levels. I have to send out some kudos to our mayor, Don Iveson, who is in Ottawa right now promoting our LRT expansion, which is a key component of any comprehensive transportation infrastructure.

Resistance for a project such as high-speed rail will come from those who see it as a waste of taxpayer money with little or no gain, low ridership, and in some cases I may have a tendency to agree with them. Conventional high-speed rail is noisy, high maintenance, sometimes consumes nonrenewable fossil fuels while cutting our commute to our southern neighbour by only 50 per cent. It's still faster to fly. Conventional high-speed rail does not inspire nor intrigue, and it does not create high-quality workers nor encourage high-technology research. The system has little room for innovative upgrade for higher speeds or the use of alternative fuels.

In the same way we are leading demand in this high-speed rail venture, we must lead the technology. We should not be satisfied with 300 kilometres per hour and a 90-minute commute but strive for more. We need a project that doesn't simply import old technology and benefit foreign suppliers. We need the first ultra-high-speed vacuum magnetic levitation train in North America. Derived from technologies already in place, such a project would leverage research and technical institutions in Calgary, Red Deer, and Edmonton that would create high-quality jobs in cryogenics, superconducting, and vacuum technologies. It would make Alberta a leader in not only the research and development of the technology but also its implementation, which will inevitably cover all of North America, all driven by renewable solar, wind, and other green technologies.

8:30

A vacuum-contained maglev train could reach speeds of up to 1,000 kilometres per hour and take you to Calgary in 20 minutes. It would be impervious to the weather and require half the regular maintenance. The system would be amenable to technological improvements which would increase speeds, and because it runs on electricity, improvements in green energy applications could be directly applied to the system. Such a system would inspire the citizenry. Much like the Saturn missions to the moon, Albertans would proudly support an infrastructure project that not only would be the best in the world but provide them with a system that all would utilize regularly.

The demography of the Canadian west is ideal for such development, with flat terrain separating larger centres. Successful implementation would spark immediate desire for extension to Saskatchewan, Lethbridge, and into the United States, expansion started from western Canada and catalyzed with technology developed in Alberta. In the late 19th and early 20th centuries a cross-country rail line was completed, making all Canadians proud. This line brought knowledge and technology from the east to the west and took resources and riches from the west to the east. My vision of ultra-high-speed rail would see the roles reversed, and high technology from the west would bring eastern riches west. This can't be done with the technology of the Model T and the internal combustion engine; it can only be done with the technology of the superconductor.

I'd just like to comment on some of the questions that have been asked often tonight. In terms of funding such a venture, I would say that with something that is truly inspirational, with a technology that is truly inspirational, I think it's a much easier sell to the public. With the benefits that it would bring, the speeds, the convenience, unlike a ring road, unlike a bridge, unlike some infrastructure projects that serve isolated areas, this would truly be an Alberta project, which I believe the citizens could all get behind.

Possibilities such as storefronts within City Centre mall and West Edmonton Mall and Market Mall in Calgary and other places which would demonstrate the technology of magnetic levitation and vacuum-encased magnetic levitation – it's truly an awe-inspiring demonstration that, I believe, if they could see it on a regular basis, people would just actively donate to, let alone support with their taxes and things like that. Mobile demonstrations that could go to schools – elementary schools, high schools, technical institutions – that would demonstrate the technology and what we would be building in Alberta and potentially extending beyond Alberta, I think, would inspire the people of Alberta.

That's all I have. Thank you very much for the opportunity.

The Chair: Thank you very much, sir. I have a few questions for you, starting with Mr. Xiao.

Mr. Xiao: Thank you, Mr. Chairman. I have a technical question. Magnetic trains actually also consume a lot of power, a lot of

energy, way more than high-speed trains, right? So as a scientist, you would probably understand.

Mr. Webb: Yes, sir.

Mr. Xiao: Also, it's very, very noisy. Some of you may have tried the one in Shanghai. Extremely noisy compared to the modern high-speed rail I just experienced a month ago. Very quiet. What's your opinion of this? The magnetic train technology was developed 25, 30 years ago, but today only one short-distance commercial line has been built, which is in Shanghai. China decided not to use that technology. Instead, you know, they are developing high-speed rail. Could you explain why from a technology perspective? I'm a geologist. I don't really understand the whole story.

Mr. Webb: Well, in this case I have empathy for the Japanese, the Germans, the Chinese, who are the first ones to implement this technology. It's always the first ones through the wall that get bloodied the most.

What I would propose is taking that technology, taking what they're learned, using the manufacturers, the patents, and developing our own technology combined with vacuum technology to begin to move the technology forward and build a system which is Alberta-specific, North America-specific, terrain-specific. Weather conditions: something that's encased in a vacuum tube is not going to be susceptible to any sort of weather at all plus leaves much less of an imprint on the environment as well just because it's not on stanchions. It's semisubmerged in the ground.

The technology challenges are more in this application because of the combination of these two, although patents are already existing. Research is already being done in California and other places, but it would have to be further developed here, using our technical institutes and our universities, building a system that in a hundred years is still applicable, in 200 years is still applicable. Going to Calgary in 20 minutes, if you cut that down to 10, I'm not going to be that impressed. So something that we make an investment in that will be there for centuries as opposed to – I mean, one would think that there's still a logical next step with conventional high-speed rail and conventional maglev. Ninety minutes? You can still do better than that, and we're going to be making another investment in 50, 60, 70 years. The technology and the development is definitely a challenge, but I believe there is enough backing behind it in terms of already existing technology and patents and information that we can move forward.

The Chair: A brief supplemental question?

Mr. Xiao: Yeah. Very brief.

You know, since you mentioned it, those technologies are almost all available. They've all been developed.

Mr. Webb: We've just got to put them together in the right way.

Mr. Xiao: Yeah. So why are the Americans not doing it? They have a much bigger market than we do. Also, you're talking about how the technology still needs to be further developed. You want that technology to be developed in Alberta. My question to you is: who is going to pay for all of that?

8:40

Mr. Webb: I think one of the challenges they have in some of the centres in the United States, be it the eastern seaboard or California, is that with what they want to put up, they're going to have to tear an equal amount down. I think we've got a lot of not-in-my-backyard type of issues in California. I think everyone everywhere on the eastern seaboard and in California would say: "Yes. We back high-speed rail 100 per cent. It's a great thing." The problem is that because of the population that's affected, the implementation is, I believe, orders of magnitude more difficult. I think we would need a much larger room if we were going to have a public inquiry or consultation in such environments, the high prices of property and things like that, which, I believe, make western Canada and Alberta an ideal opportunity.

The Chair: Thank you.

The next person, who is giving me the evil eye, is Mr. Dorward.

Mr. Dorward: Thank you. I've got about eight questions for you, but I think I only have time for one, so it's going to be a bit of a weird one. We're at a certain stage of technology in the area that you work in right now. If technology in the year, let's say, 2050 was at 100, where do you think we are today? Stated another way, how much more will we develop in the next 30 years, 35 years in this technology?

Mr. Webb: As I think many can attest to, in terms of magnetic levitation, in terms of vacuum technology the technology is proven. The technology is sound. It's the application in the right environment, the application in the right combinations that is more the challenge than the technology itself.

Mr. Dorward: Okay. The application of it in our environment.

Mr. Webb: Especially in our environment. We have the luxury of experiences in other locations, but European and Asian environments are hard to compare to our own. What my proposal would be in terms of combining magnetic levitation with vacuum tube technology, that is a challenge because it has not been tested on this scale yet.

Mr. Dorward: Mr. Chair, just speaking on behalf of my thoughts relative to our report and getting the balance of the population of Alberta, the cost of things as we look at them today and in the future, and the growth of Alberta's population in the future, waiting for technology to move along with population may be a better alternative for us than grabbing a hold of existing technology today and thus exposing ourselves to the risk of technology going well beyond that into the future when we finally have the population which may accept the technology available at that time in the future. That's a bit of the dilemma we're faced with and something we should respond to in our report.

I thank you very much for your presentation.

Mr. Webb: Thank you.

The Chair: Thank you.

We have one more question. Mr. Rogers, please.

Mr. Rogers: Thank you, Mr. Chairman. I'm going to be quick. I won't get into the technology, sir, because obviously it's quite deep and in the interest of time. I think I heard you say that this is more than moving people. It's about moving the bar. It's an opportunity to take, maybe, the economy and research and development in this province to another level. That's sort of what I gleaned from most of what you had to say.

Mr. Webb: It's hard to inspire kids with overpasses and ring roads. In my experience, where I'm at, I work more with the cryogenic and the superconducting technology. We have students come through from the elementary school to the junior high

school level. The looks on their faces when they see a magnet levitate and when they see a banana shatter because it's been frozen in liquid nitrogen or things like that: their eyes pop out, and the teachers and the parents and everyone involved are amazed by it. To be able to take those applications and apply them to such a project as high-speed rail, taking these demonstrations of what a final proposition would be to schools, to public places, showing it to taxpayers and saying, "This is what we're going to do," it's like shooting a rocket up into the air. People's jaws drop, and they say: that's just an amazing thing. To say that I'm an Albertan and I was there when they built that, that that is what my grandparents did – I believe that would help us out in terms of some of the funding issues that we're always concerned about and the public opinion that we're always concerned about.

Mr. Rogers: Very inspiring. Thank you.

Mr. Webb: Thank you very much.

The Chair: Thank you very much. Thank you, all. I'd like to take this opportunity to thank each and every one of you.

One more? Okay. Please introduce yourself for the record. You have 10 minutes and five for questions.

Paul Godsmark

Mr. Godsmark: My name is Paul Godsmark. I'm with the Canadian Automated Vehicles Centre of Excellence. I'm a chartered engineer. I've only had two winters in Alberta, but they've been very good ones.

I believe there's an elephant in the room. There's a subject which you are not aware of. I went through *Hansard*, and it's not been discussed at any of the previous meetings. There's a basic assumption that the road network is going to remain pretty much as it is for the next 10, 20, 30 years, and I want to make you aware that that is not the case. With high-speed rail we're looking at eight years minimum before any network would be in place. I'm a civil engineer, and I've become a specialist in emerging technologies in transportation. I believe that we're facing a paradigm shift in surface transportation.

Now, we're familiar with paradigm shifts in mobile communications technology. Looking around the room, most of us have had four in our lifetimes. We're actually expecting the next paradigm shift, moving from the smart phone to wearable technologies, but on the roads nothing has changed for 130 years, since we moved from the horse to the car, and on the railways it hasn't changed for nearly 200 years because mechanized railcars have always gone along a fixed rail, and they've been stuck to that.

What's going to happen on the roads that I'm talking about is automated vehicles. They're also called autonomous vehicles, driverless vehicles, or self-driving vehicles. These literally are vehicles which, when they're developed to their fullest extent, will be able to carry us without requiring a human driver. That is absolutely key to understanding this.

The automakers have been looking at this for many years, and Daimler, Nissan, and Volvo are all stating that they will have driverless vehicles available by 2020 or soon after. However, their business model suggests that they will keep selling at least one car to every one of us whereas Google, who are leading the way in this development – and I've been driven by one of their driverless cars down in California – say that their technology will be ready by 2017. That's their aspiration, and that was confirmed two weeks ago face to face. I was at a conference, and the lead safety director for the Google self-driving car team confirmed again that their aspiration is 2017 or soon after. This will be a paradigm shift on our roads.

If you can just imagine that it's 2022 in Edmonton, I'm in the south of Edmonton, and I want to go to Calgary for a meeting. I've booked my car. I was very organized; I booked it the night before. The car arrives on my doorstep. I get in it, and the car takes me down the QE II in the dedicated high-speed automated vehicle lane. My vehicle is electric powered. I'm actually sharing a ride. The other guy in the vehicle with me, in the other side of the compartment, has split the cost. It's going to cost us each a hundred dollars to get down to Calgary.

8:50

The vehicle actually joins a platoon of other high-speed electric autonomous vehicles. We travel down in that platoon on the QE II, which probably doesn't need widening because we've got fewer vehicles on the road. We've raised the average vehicle occupancy from 1.1 to over 2, which will absolutely transform congestion in our cities. It will have massive impact on LRT.

I get down to Calgary in two hours. My meeting is in the north of Calgary, and I get door-to-door service, and it's taken me two and a half hours to get from Edmonton to Calgary in an electric vehicle. I've been able to work all the way.

The Chair: Doing the speed limit?

Mr. Godsmark: No. In the dedicated high-speed lane. That could be up to 150 kilometres an hour. Google has been testing these on US-95 in California at high speeds in the HOV lane.

There's already an example in Alberta. Suncor is using an autonomous truck up in the oil sands, but they've actually been used in the mining industry since 2008, 2009. Also, in January this year the first commercially available low-speed electric shuttle went on sale. You've got the automakers and Google developing this technology, potentially a disruptive technology. The benefits of these autonomous vehicles are in safety. They can massively improve safety. Ninety-five per cent of road crashes are due to human error. The societal cost of road crashes in Edmonton alone is $7 billion. The direct costs are more like $1 billion to $2 billion. Throughout Alberta it's massive.

Morgan Stanley did a study of autonomous vehicles, and they reckoned that it could save the U.S. $1.3 trillion a year when this technology is fully deployed. For Canada I estimate that the savings would be $100 billion. For Alberta it would probably be $10 billion a year.

The impact on the high-speed rail, as I see it, is the funding mechanisms. If you're looking at private funding and they're looking at ridership, then I honestly believe their ridership models require due diligence against the impacts of AVs, these autonomous vehicles. The assumption from the mayors of Calgary and Edmonton that the LRT is absolutely key to this technology working I would have to disagree with. I think due diligence, again, needs to be carried out for the impacts of autonomous vehicles. It's the biggest threat to and the biggest opportunity for LRT.

Another thing I think you ought to be aware of is that the environmental impact statement is a regulatory requirement, and it can be subject to legal challenge. An alternative must be considered for any major infrastructure scheme. You must look at alternatives. I would say that automated vehicles are an alternative that must be considered because if they are not, this could very likely face a legal challenge.

That's what I wanted to say. Thank you.

The Chair: Thank you.

We have two questions. Mr. Xiao.

Mr. Xiao: Thank you, Mr. Chair. Fascinating. I couldn't help but want to ask you a question. You know, I think the future is going to be amazing – there's no question about that – but it takes time for us to get there, right? Probably from the point of the mature technology being introduced to having this technology being adopted on a massive scale, it takes time. Between now and then, what's your opinion? What kind of transportation network should we develop in order to prepare for the change in the future?

Mr. Godsmark: I would say that this technology – we've never had a technology like this before, that simply by owning it can make you money. For instance, if I had an autonomous vehicle – and most vehicles 90 to 95 per cent of the time sit idle – when I'm not using this vehicle, I could hire it out. What we will find is that taxi companies, car rentals, and car-share/ride-share companies all adopt this technology very rapidly.

The Earth Institute at Columbia University looked into this, and they found that just by giving up ownership of a car, the average person could save 40 per cent of their transportation costs a year. For the average person that's about $4,000, which could be life changing for some people. That also means that you are safer, you use less gas, you don't waste time parking, and you don't waste time trying to maintain your own vehicle. So we will see shared vehicles, which is a totally new paradigm, but I believe that because it will save the average person so much money, the uptake will be rapid.

Mr. Xiao: Thank you.

The Chair: Thank you.

Mr. Luan: Very quickly. By the same token, from my interpretation, you're talking about a high-speed car, so I'm thinking a high-speed bus, a high-speed train. It's almost that with the technology that can enable the autonomous car, which you were talking about, I can't help but imagine you can do the same for a bus. You can extend a bus bigger to become a train. We're virtually talking about a new, evolutionary technology that puts the traditional thinking into a different category. That is what I'm hearing.

Mr. Godsmark: That's correct. The advantage of the automated vehicle is that the private sector, you and I, will end up paying for the vehicles. There is no change required to the infrastructure whatsoever. We don't need any new infrastructure. We don't need to build a new route. We just use the existing highways to their full potential. Trust me; once we automate them, they have the potential to be four times more efficient once we get the suboptimal humans off the road.

Mr. Luan: It's very interesting. It makes me feel like our committee should consider really investigating this piece.

The Chair: Thank you.

Thank you, all, very, very much. Thank you, ladies and gentlemen, for being here tonight. I must say that this has been a very productive evening. We have heard from 11 presenters with very interesting presentations. I would like to take this opportunity to thank each and every one of you who took the time out of your busy schedules to come here and meet with us, with the committee on the economic future of the province of Alberta, and to present to our committee. I want to assure you, though, that we did not come here with any predetermined outcome or any predetermined conclusion. We came here to listen to you because you are the most important stakeholders. You are the riders.

Our committee report will reflect exactly what we've heard from you. On behalf of the Standing Committee on Alberta's Economic Future thank you to each and every one of you again, to everyone who attended this evening's meeting, and to those who presented. Thank you for your contribution to the committee's study of the feasibility of establishing high-speed rail transit within Alberta. There is still an opportunity to participate by sending the committee your comments in writing. The deadline for receipt of written submissions is March 31, 2014.

I'd also like to thank the media; the *Hansard* staff; the support staff; the committee clerk; my assistant, Zack; and also the security.

Mr. Rogers: And research.

The Chair: And research, of course. We couldn't do anything without them.

Thank you very much, and have a great evening. Thank you, all.

[The committee adjourned at 8:59 p.m.]

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