Bringing Responsible Rail to Alberta

Presentation to Big Sky Passenger Rail Authority, January 11, 2023

Our vision:

We envision a future where regional rail is a cornerstone of our transportation system, providing affordable and sustainable options for travel between Edmonton and Calgary, from Alberta, and to Montana.



To develop and run a <u>world class</u> responsible regional rail transportation system that is reliable, efficient, and environmentally sustainable for Alberta and for the benefit of all Albertans.

Who are we and why are we here?

We would love your help and support of our project. We are aligned on our mission to bring back rail to our communities.

What or who is Alberta Regional Rail?

We are a group under the corporate name of Alberta Regional Rail Inc. (ARR) who are passionate about bringing Responsible Rail passenger train connecting Edmonton to Calgary, with further interest in connecting Montana with Alberta.

Our mission is to develop and implement a world class regional rail transportation system that is reliable, efficient, and environmentally sustainable, while also being financially viable and socially responsible.

We call this "Responsible Rail"

Transportation problems in Alberta

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Limited options: Buses, and car travel on Hwy 2 is the only present option and traffic on this route is expected to increase to XXX by 2030 3

Carbon target obligations: Alberta has large carbon reduction targets and is presently behind programs and plans that support carbon reduction.



Air Travel: air travel between short distances like Calgary and edmonton are no longer viable with some jurisdictions banning short haul air travel. Air travel is not affordable option for most people.



Growing populations: Alberta is seeing drastic growth in the near and long term future, compounding the travel issues it now faces.

Past High-speed rail studies

Numerous Alberta government-commissioned reports have called for the province to build high-speed rail.

- Studies in the 1970, 1985, 2004 and 2008 all found that high-speed rail is feasible and would bring significant benefits to the Calgary-Edmonton corridor and Alberta as a whole, including economic benefits and additional tax revenues.
- So what's the issue? Why has a project not been undertaken in Alberta? While HS is feasible, it may not be optimal.



Headwinds for our proposal



Road obsession. Attitudes and paradigms about rail transport. Alberta is road and highway and air travel biased. Rail is seen as a lower form of travel



High-speed. People and thus politicians are enamored with high-speed rail. High-speed is sexy and gardners all the headlines however it is incredibly expensive and potentially irresponsible option for Alberta for many reasons.



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Responsible Rail

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Responsible Rail approach

- **Safety:** Implementing safety measures such as redundant signaling systems, automatic train control, and collision avoidance systems to prevent accidents.
- **Sustainability:** Utilizing sustainable technologies and practices such as electric or hydrogen-powered trains, and incorporating energy-efficient design elements into infrastructure and stations.
- Accessibility: Accessible and convenient for all. Ensuring that rail systems are accessible and convenient for all users, including providing ramps and elevators at stations, and offering special accommodations for passengers with disabilities or mobility limitations.
- **Equality:** Working all communities including indigenous communities to ensure that rail projects are developed in a way that respects the rights and interests of these communities.



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Our vision and mission

- Create a regional rail transportation system that connects Calgary and Edmonton (and Alberta to Montana, based on "Responsible Rail" approach.
- Drive economic growth and sustainability in Alberta, and enhances the quality of life for communities along the corridor.
- Develop and implement a regional rail transportation system that is reliable, efficient, and environmentally sustainable, while also being financially viable and socially responsible.
- We believe that regional rail transportation can provide a variety of benefits for Alberta, including reduced congestion on roads and highways, improved access to employment and education opportunities, and reduced greenhouse gas emissions.

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Benefits to the Calgary-Edmonton corridor.

- Reduced congestion on roads and highways, improved access to employment and education opportunities, and reduced greenhouse gas emissions.
- Drive economic growth and sustainability in smaller Alberta communities and enhances the quality of life for communities along the corridor.
- Connect two major international airports for capacity sharing and building for airlines and help smaller communities to choose departure airport gateways.

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Benefits to Alberta - Montana corridor.

- We believe that a US-Canada "Responsible Rail" project like the one we are proposing has the potential to build prosperity for both countries, and we are excited about the potential for collaboration with Montana.
- By connecting Banff National Park with Yellowstone National Park, we can drive tourism and economic growth in both Alberta and Montana.
- In addition, we believe that regional rail transportation can enhance the quality of life for communities in both countries and strengthen the bond between our nations.

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Project background: The history of ARR

- Over the past decade, our team has been working to develop the concept of regional rail transportation in Alberta.
- Forge alliances and relationships, including positive conversations with Canadian Pacific Railway, the primary freight rail provider in Alberta, to ensure that our project is compatible with their operations and does not disrupt access through downtown Calgary.
- Forge alliances and relationships with indigenous leaders and nations.
- Develop specifications for the project, including the type of rolling stock and infrastructure needed.
- Created a Gravity Model to economic viability of our plan..

Key project milestones to date

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18 month feasibility funding secured

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Relationships/Partnerships

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Understanding the market

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Alberta today

Alberta's population growth shattered records in the third quarter of 2022

- Alberta added 58,203 residents between the beginning of July and the end of September in 2022, posting a growth rate of 1.28%.
- Estimated population of Alberta is 4,262,635
- Alberta still has the highest natural growth rate, the youngest average age, as well as the lowest proportion of people aged 65 and over.
- International migration added 33,297 net new residents to Alberta in the third quarter of 2022.



Alberta in 2046

In 2046 Alberta is expected to:

- reach over 6.4 million people, an increase of almost 2.0 million people from 2021
- become older, with an average age of 41.7 years, up from 38.9 years in 2021
- become increasingly diverse, as arrivals from other countries account for about 55% of the expected growth over the projection period
- 80% of Albertans are expected to live Edmonton-Calgary Corridor by 2046





- Calgary is the financial centre of Alberta.
- Estimated population of Calgary is 1,269,845
- Annual growth rate of 2.47%.
- Increased diversity with more than 25% of the population of Calgary belongs to a visible minority group
- Strong population growth and job growth are expected to bring the unemployment rate down, drive business creation, and boost consumption.



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Edmonton

- Edmonton is the capital of the province of Alberta.
- Estimated population of Edmonton metropolitan area has a population estimated at 1.8 million
- Annual growth rate of 2.80%
- 4 million people visit Edmonton every year. It's the most popular destination in Alberta, CA.
- Edmonton has more than 30 annual events all year round. The Music, Fringe and Street Performers Festival are globally renowned.



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Calgary-Edmonton Corridor

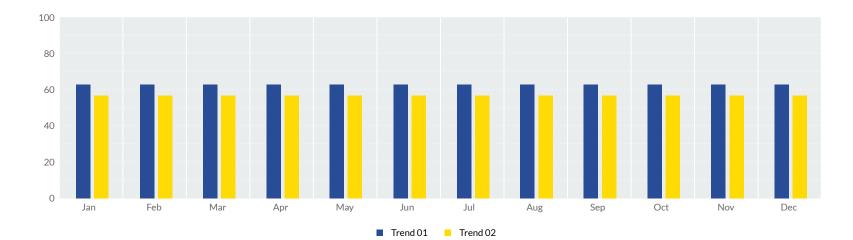
- Red Deer had a population of 104,392 in 2021, third in the province.
- The Calgary–Edmonton Corridor is the most urbanized area in Alberta and is one of Canada's four most urban regions.
- Measured from north to south, the region covers a distance of approximately 400 km (250 mi). It includes the metropolitan areas of Calgary and Edmonton and cities of Red Deer and Wetaskiwin.



Population trend analysis

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Target audiences

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Responsible Rail

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Competitive proposals

- Prairie Link announced its intention to build a 400 km/h high-speed rail line connecting Edmonton, Red Deer and Calgary, with a total travel time of under 90 minutes - EllisDon and AECOM
- Toronto-based company called TransPod announced the results of its feasibility study for an "ultra-high-speed" Alberta hyperloop



History of rail: Cal-Edm Corridor

Calgary and Edmonton Railway completed

In 1891, the Calgary and Edmonton Railway completed a rail line from Calgary to "South Edmonton", an area south of Edmonton across the North Saskatchewan River. The trip initially took around 12 hours.

Via Rail assumed operation

In 1978, Via Rail assumed operation of the route alongside the rest of Canadian Pacific's passenger trains. Under Via, the train ran from Tower Centre in Calgary through Red Deer to Strathcona in Edmonton. two daily round trips, taking about 3 hours 10 minutes to traverse the 312 km (194 mi) route.

Presently services by bus.

There are three primary bus carriers that go between Edmonton and Calgary, which make up about 36 daily trips.



Canadian Pacific Railway acquired Calgary and Edmonton Railway

On January 8, 1904, the Canadian Pacific Railway acquired control of the Calgary and Edmonton Railway. To better compete with the Canadian Northern Railway, the CP built the High Level Bridge and extended service to the downtown Edmonton station.

Service discontinued

On October 27, 1985, the train was discontinued and replaced with motorcoach bus service via Alberta Highway 2.[8]

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Problems to solve



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Funding for feasibility study.

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Why RR vs. HS rail?

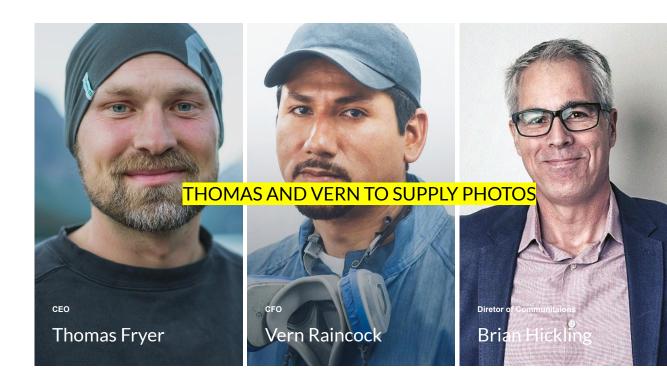
- High-speed rail uses electricity where Responsible Rail can utilizes new hydrogen locomotion technology eliminating the need for electrification of the corridor.
- High-speed rail requires a separate rail system, whereas Responsible Rail can utilize existing tracks and infrastructure
- High-speed rail may not be as feasible in Alberta due to the large distances between cities and the potential cost of building and maintaining dedicated tracks.



AAR teams and strategic partners

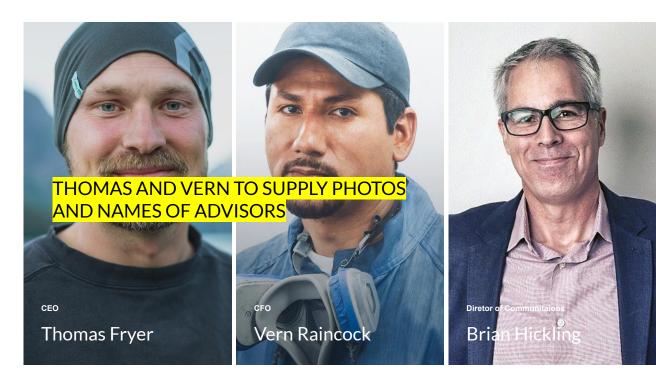
ARR Core Team

The ARR team is made up of experienced professionals with a diverse range of skills and expertise.



Advisory Team

The ARR Advisory Team team is made up of experienced professionals with a diverse range of skills and expertise.



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Partnership s

The ARR has both formal and informal relationships and partnerships.

Logos of partners go here.

Next steps

Project feasibility study

A comprehensive assessment of the potential to bring responsible and sustainable transportation to the region. The study is expected to thoroughly examine the following:

- the potential impact of this transportation system on the Alberta and Montana economies.
- impact on tourism, particularly the increased visitation to Banff and Yellowstone National Parks through the connectivity provided by the rail.
- economic benefits to both large and small communities in both countries, as well as the potential benefits to indigenous communities.
- environmental benefits of rail travel compared to car and air transportation, including carbon reduction targets.
- safety of the rail system will also be a key consideration.
- cost of both start-up and operational capital costs will be analyzed, as well as potential capital funding models and government support from both Canada and the United States.

Study process



Phase One

Design and KPI's of the study, goals and partnerships, funding.

Phase Two

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Phase Three

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Deliverables & costs

Feasibility study would provide a comprehensive evaluation of the viability of the Responsible Rail project and help decision-makers determine if it is a viable and worthwhile investment

PHASE ONE

200K

To explore the benefits and investments required for the project to be approved and then financed **PHASE TWO**

690K

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PHASE THREE

100K

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Problems to solve



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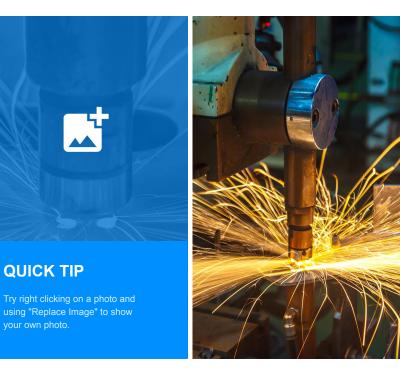
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Market trends

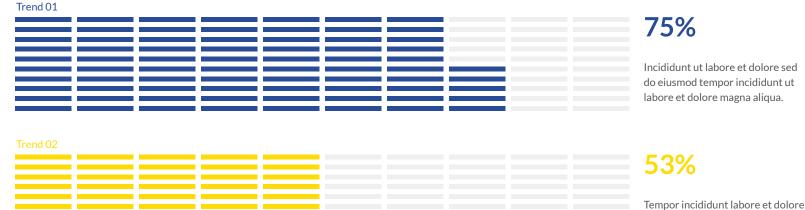
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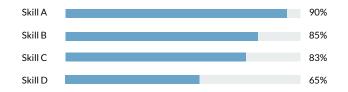


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CEO

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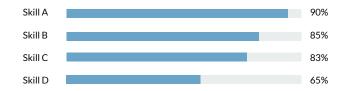




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