# **HYDROGEN:** A New Energy Source for Alberta's Future

October 16, 2020





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## Message from NDP Leader Rachel Notley

#### My Fellow Albertans,

Peter Lougheed recognized that in order to grow a worldclass oil and gas sector in Alberta, we needed to make bold, strategic investments.

Now, I submit to you we need to find the same courage and take the same initiative to launch the next chapter of energy leadership in Alberta.

Albertans are trailblazers. We see opportunity and we work hard to not just be first, but best. That's why we have to start considering bold proposals to diversify our energy industry.

By acting strategically, we can give our economy the shot-in-the-arm it so desperately needs to create new jobs for Albertans, grow new opportunities for our economy, and set our energy industry on a path forward for the future.

By leveraging our province's large inventory of natural gas, combined with our exceptionally well-qualified workforce and existing energy infrastructure, we may be able to generate large-scale commercial production, innovation and export of hydrogen fuel that will trigger growth in an industry expected to grow to \$700 billion or more in annual sales globally.

We can dramatically lower our own carbon footprint while powering a global hydrogen economy. We have the opportunity to succeed as the world's leading low-cost, low-emission hydrogen producer. But we need to act now.

This proposal is but one of many reasons for why we are launching AlbertasFuture.ca. It will be a gathering place for a dynamic, ongoing conversation about your priorities for a diversified economy that will continue into next year and beyond. We will be seeking your input at every turn.

Together, we can create a bold roadmap that sets Alberta up for a recovery today, while creating a stronger economy for tomorrow. Alberta leads when we look forward, not back, and we won't stop until the rest of the world looks to us, knowing that the future starts right here.

> Sincerely, - Rachel Notley Alberta NDP Leader

please head to AlbertasFuture.ca for further information and to sign up for the discussions on the future of Alberta's oil and energy sector

## Message from Current & Former NDP Energy Critics Kathleen Ganley & Irfan Sabir

Dear Albertans,

We are very excited to present to you — on behalf of the Alberta NDP — our hydrogen proposal. This document stems from many conversations with Albertans and industry leaders about the future of our energy industry. The focus of those conversations — and there will be many more in the days ahead — is about how we can create good jobs for Albertans now and in the future.

The current global hydrogen market is developing and many key technologies have postitioned us to enter the market. Moving quickly on establishing a well-developed plan is necessary and will take advantage of a great opportunity to create jobs everywhere from downtown Calgary to the Industrial Heartland surrounding Edmonton and elsewhere.

Several jurisdictions are currently looking to advance their hydrogen industries and they have developed comprehensive strategies. We have looked at those ideas to help form our own.

You will see in the pages that follow some ideas that are fully developed — we want to hear from you on whether they make sense and whether the investment is worthwhile.

You will also see some ideas that require discussion and refinement first — we want you to weigh in on those

submissions, their validity and propose alternative or complementary ideas.

Our long history of innovation proves that we have the talent and ingenuity to overcome challenges in delivering energy to the world now and well into the future. Recent examples have shown that the government has an important role to play in fields such as petrochemicals, renewable energy, and the tech sector. In all of these examples the provinces supported the development of these industries to great success and in the case of the tech sector, we have clearly seen that taking away provincial supports can be hurtful to the growth of an industry.

We want to encourage all Albertans to provide us with feedback on our strategy and to propose ideas of their own. It is our hope that we will engage many Albertans about hydrogen and Alberta's broader energy future.

Sincerely,

#### - Kathleen Ganley

NDP Official Opposition Critic for Energy

#### - Irfan Sabir

NDP Official Oppostion Critic for Justice

### **Response to Government Policy**

The Government has announced plans for Hydrogen as part of its Natural Gas strategy. The current plan is to start building "alliances and partnerships" in Alberta and across Canada in 2021 and publish a roadmap three years from now. According to them, this work will eventually lead to exporting hydrogen in 2040. The current strategy proposes no specific action and seeks to largely plan to support hydrogen through the normal course of Government actions. Albertans and industry will have to wait for specific proposals until at least 2023.

While we are glad to see the Government finally acknowledging the potential of hydrogen, their plan is too vague to serve as any kind of incentive for industry action.

While Alberta and Canada are behind, Germany has been advancing its hydrogen infrastructure aggressively and has committed around \$13.5 billion to the sector.

Countries around the world have published hydrogen strategies in the last two years and committed billions of dollars toward growing the sector. For example, the Australian Government has already committed \$350 million CAD to grow the hydrogen sector, with millions more being invested by Australian states. Without substantial movement and some necessary investment now, Alberta risks being left behind while

the rest of the world moves forward. And while we would be looking for investments from the federal government, we in Alberta also need to take action to ensure our hydrogen sector becomes a world leader.

To date, the UCP is looking at hydrogen produced from natural gas (blue hydrogen) and ignores opportunities from producing hydrogen with renewable energy (green hydrogen).

Work done under the term of the NDP Government demonstrates that Alberta is a fantastic place to invest in renewable energy. The Renewable Electricity Program (REP) enabled price discovery in Alberta and attracted billions of dollars in private sector investment. Building on that, we believe Alberta has real potential to become a green hydrogen producer as well.



# About Hydrogen (H2)

Hydrogen is the most abundant element in the universe and is the first chemical element of the periodic table. At standard temperature and pressure it is a colourless, non-toxic, odourless, tasteless, and flammable gas. On Earth, however, it is rarely found in its pure form and must therefore be produced from compounds that contain it. Once produced, it can be used to store and make energy.

Hydrogen has a very high energy density, three times the amount of energy compared to natural gas if compared at the same weight. However, the high density of hydrogen makes storage a challenge, which often requires it to be compressed or transformed into a cryogenic liquid.

Hydrogen is used in a variety of applications, such as in fertilizer production, rocket fuel, or process heat. NASA has been using hydrogen since the organization was founded.

Now, scientists are developing new solutions to realize hydrogen's potential to be used as a fuel source for commercial and consumer purposes. Going forward, hydrogen could be used where modern batteries may not make sense, such as the heavy trucking or maritime transportation industries. Potentially, hydrogen can be applied in industrial processes such as steelmaking. For example, German Steelmaker ThyssenKrupp and Chinese Steelmaker Baowu are working on replacing metallurgical coal with hydrogen for its blast furnaces. Further, hydrogen has positive effects on air quality if it replaces natural gas or gasoline.

#### Hydrogen production is typically divided into three categories: grey, blue and green hydrogen.



The hydrogen market is expected to grow significantly. The International Energy Agency indicates that the market for hydrogen has been growing slowly but steadily for decades. Bloomberg New Energy Foundation estimates that with strong policy support, annual sales of hydrogen could be worth \$700 billion or more by 2050 depending in which areas hydrogen gets adopted.

A common concern related to hydrogen is safety. While hydrogen is non-toxic it is highly flammable and burns with a near invisible flame. Further, it can cause certain metals to become brittle and leak. We also have seen some isolated incidents of explosions at hydrogen fueling stations in the United States, Norway and South Korea. However, hydrogen has been used for over 50 years by NASA and many industrial applications. Hydrogen is also lighter than air which makes it disperse rather quickly should it leak. Technology is rapidly developing and more and more companies are running pilots and investing more in R&D to further improve the safety of hydrogen applications. Obviously, significant investment in hydrogen must be preceded by robust and proven safety standards.

# **Setting the Stage for This Report**

As the oil and gas sector faces many challenges due to global market forces, we must find solutions that meet global climate targets and that rise to the challenge of a net-zero world. Hydrogen can play an important part in that, especially when working in tandem with increased electrification, and it represents an opportunity for Alberta's energy sector. The European Union and at least 21 other



Developing Yes Regional only

countries have developed national hydrogen strategies. In addition, many provinces, regions and cities have adopted their own strategies.

Hydrogen is an important part of Norway's \$500 million green transition plan. Norway intends to facilitate innovation in key sectors, such as shipping or transportation.

Countries with ambitions to export hydrogen, such as Australia and Norway,

have already launched hydrogen strategies and committed funds to grow their respective industries. Both countries have had success in moving projects forward. As well, the European Union is investing billions in hydrogen innovation and production.

Since November 2015, Australia has committed close to \$500 million CAD. They have established agreements with South Korea, Japan and Singapore on hydrogen, and they are already taking specific action on growing Australia's hydrogen sector. Australian states are also taking actions on their own and facilitating space innovation and commercialization. Australia is targeting to be a major global hydrogen exporter by 2030, a decade earlier than the UCP Government.

Countries that could potentially import hydrogen from Alberta, such as South Korea and Japan, have developed ambitious strategies for large-scale hydrogen technology deployment.

Calgary-based think tank The Transition Accelerator estimates that Hydrogen represents a potential \$100 billion dollar annual industry in Canada.

"Hydrogen could power Alberta's future economy"

"If the province produced and exported hydrogen as a transportation fuel, instead of selling an equivalent amount of crude oil and natural gas to the U.S. at discount prices, the Alberta economy could generate three to 10 times more economic activity"

Dr. David Layzell and Jessica Lof, Canadian Energy Systems Analysis Research

"Blue hydrogen (hydrogen made from natural gas) holds the potential of transforming much of Canada's existing oil and gas infrastructure into a net-zero energy source"

Kevin Krausert, CEO Beaver Drilling

Alberta has the potential to be a global leader and export hydrogen. We have several advantages, including our well-qualified workforce, abandoned gas feedstocks, low energy prices, and existing infrastructure that can be used for hydrogen.

## Proposals

#### **GROWING THE HYDROGEN MARKET**

Lead a comprehensive conversation and study on the safety, business case, market interest and feasibility of an export hydrogen pipeline and consider a loan guarantee program to support projects that meet strict criteria

- 2) Work with industry and communities for made-In-Alberta Hydrogen Hubs
- 3 Work with communities, farmers and industrial partners on potential hydrogen applications
- 4 Conduct an inventory of current hydrogen infrastructure

#### GROWING THE ALBERTA HYDROGEN INDUSTRY

- 5 Develop an incentive program for larger hydrogen projects
- 6 Attract skilled workers and developing homegrown talent
  - Develop a proper regulatory environment

- 8 Facilitate partnerships in the province and interjurisdictional cooperation
- 9 Fund new research on hydrogen
- **10** Support pilot programs and innovation
- 1 Reduce carbon intensity of hydrogen

#### GUIDELINES

- 1 Our proposals should benefit Albertans, grow the economy, and create jobs in Alberta.
- 2 Our proposals must be adaptable to different potential global hydrogen growth scenarios and develop the most appropriate supports for every scenario.
- **3** Hydrogen represents an opportunity to move towards a net-zero future. Our proposals would ensure Alberta's hydrogen plays a key role by focusing on low carbon hydrogen production.
- We must regularly review hydrogen progress in jurisdictions around the world and adjust our strategy accordingly on a regular basis.



#### **GROWING THE HYDROGEN MARKET**

#### LEAD A COMPREHENSIVE CONVERSATION AND STUDY ON THE SAFETY, BUSINESS CASE, MARKET INTEREST AND FEASIBILITY OF AN EXPORT HYDROGEN PIPELINE AND CONSIDER A LOAN GUARANTEE PROGRAM TO SUPPORT PROJECTS THAT MEET STRICT CRITERIA

We propose the establishment of an expert task force to work immediately with industry, potential investors, and international partners in potential export markets, such as South Korea, Japan, and California, to evaluate the feasibility of export infrastructure projects.

The study, and the general work of the task force, would also include evaluating existing corridors as well as assessing public support for a potential export project. Market access is crucial to growing our hydrogen industry and, as such, the business case for providing a loan guarantee should be objectively and independently evaluated.

#### WORK WITH INDUSTRY AND COMMUNITIES FOR MADE-IN-ALBERTA HYDROGEN HUBS

Jurisdictions with ambitious hydrogen strategies such as Australia, the United Kingdom, or Norway are looking to develop "hydrogen hubs." Hubs have the potential to grow demand, supply, and technology together.

A Hydrogen Hub is a local collaboration between industry, different levels of Government and community partners to promote local production, infrastructure and hydrogen applications, such as transportation, home heating, and meeting local community energy needs. Hubs essentially establish localized clusters for hydrogen. The International Energy Agency has identified this as a key opportunity for lower-cost, lower-carbon hydrogen.

In the Netherlands, a partnership of different levels of government, research institutions and industry has brought together 31 partners from six countries to build a large-scale Hydrogen Hub with a variety of projects that cover the whole supply chain called HEAVENN. The region used to be an important natural gas producer but production is now largely phased out and hydrogen represents an opportunity to build on the region's expertise creating a new industry. Partners have collectively committed \$70 million Euros and are receiving \$20 million from the European Union in support.

The Hub will have applications that include hydrogen production, storage and transportation as well as a number of applications in industry and mobility. Our proposal is to explore the feasibility of similar options and help interested partners to come together.

The HEAVENN Hub includes a very wide variety of participants with different projects. For example, the natural gas company Gasunie is involved in different projects exploring production of hydrogen. As well, BioMCN is working on producing green methanol, while the municipality of Hoogeveen is partnering with GasTerra to build around 80 homes running entirely on hydrogen and the Groningen Seaport is exploring hydrogen infrastructure at the port.

## WORK WITH COMMUNITIES, FARMERS AND INDUSTRIAL PARTNERS ON POTENTIAL HYDROGEN APPLICATIONS

Hydrogen has exciting potential applications for industrial vehicles like buses, trucks, or farm equipment. We propose working closely with organizations like Emissions Reductions Alberta to explore the economic case for hydrogen in these sectors, and develop incentives that create the market conditions for success.

Further, we would consider de-risking some early investments in hydrogen. One option could be a model similar to the Green Loan Guarantees program that gave loan guarantees for up to 50 per cent of a commercially acquired loan supporting green technologies, as well as other types of programs that provide small grants for testing hydrogen applications.

#### CONDUCT AN INVENTORY OF CURRENT HYDROGEN INFRASTRUCTURE

For hydrogen to be accessible we must have the infrastructure in place that can deliver hydrogen to customers using cost-effective, convenient methods.

Much of the natural gas infrastructure can likely be used for hydrogen to some extent since it can be mixed into existing gas pipelines, potentially up to 20 per cent. This is a good start but, in order to maximize growth, we will need to develop new methods for transporting hydrogen to customers. Part of the evaluation will be to understand to what extent existing infrastructure can be retrofitted and where we need new infrastructure for hydrogen.

Refueling infrastructure will also be key to developing Alberta's hydrogen market. We expect to see some in hydrogen hubs or as part of local projects, but to make transportation fueled by hydrogen, we will need a wider net of refueling options. The Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative by Natural Resources Canada is investing in electric vehicle fast-charging stations, natural gas refueling stations, and hydrogen refueling stations. As of March 2020, the program had only selected eight hydrogen refueling stations nationwide, whereas other countries have much more ambitious goals. For example, California already has over 40 hydrogen refueling stations and more under construction.

Regardless of whether the Federal Government develops a more ambitious plan, Alberta has an opportunity to build infrastructure in the province now, and get ahead of the curve. In Germany, the Government set up a joint venture with industry partners including Air Liquide, Daimler, Linda, OMV, Shell and Total to build 100 refueling stations. Alberta should consider similar partnerships.

We propose working closely with industry and the Federal Government to develop potential transportation corridors for hydrogen transportation. This will help companies make the decision to pilot hydrogen transportation and incentivize hydrogen innovation right here at home.





# Alberta's FUTURE.ca

#### **GROWING THE ALBERTA HYDROGEN INDUSTRY**

#### DEVELOP AN INCENTIVE PROGRAM FOR LARGER HYDROGEN PROJECTS

Large-scale energy projects require significant capital cost and specific programs can help industry raise the required funds. For example, the Petrochemical Diversification Program established by the NDP Government guaranteed royalty credits to petrochemical projects as soon as they were completed. The program's success in attracting investments demonstrated how successful these kinds of incentives can be. Before the UCP eliminated the program, it had the potential to attract 70,000 direct jobs and attract \$75 billion in private sector investment.

We propose implementing a program to support large hydrogen projects right here in Alberta by offering support infrastructure. In The first phase, the program would have a blue and a green hydrogen tranche. This would put us on par with other jurisdictions that are already on the way, such as the North H2 by Shell, Gasunie and Groningen Seaports as well as a project in Saudi Arabia by ACWA Power and Neom.

There will be a variety of options to design the incentive program as it potentially could be rolled into a new petrochemical program, the Alberta Petrochemicals Incentive Program, or become its own standalone offering. As the market is still developing, now is the time to set up consultations that can inform decisions as the industry matures. The UCP's inconsistent support for the petrochemical industry demonstrated that by not committing to a strong program it significantly slowed investment in a sector and caused our province to fall behind.

Another option the province would use is a specific incentive program for green hydrogen. Programs such as REP have shown that this approach can be very successful. The REP surprised many observers with the low cost of renewable electricity in Alberta. Subsequently, it helped to tap into the huge global interest in green energy and attracted large private sector investments to Alberta. This shows Alberta is an excellent place for green investments and that government programs can be the key to unlocking them.



#### **GROWING THE ALBERTA HYDROGEN INDUSTRY** (cont'd)

## ATTRACT SKILLED WORKERS AND DEVELOPING HOMEGROWN TALENT

One of Alberta's greatest assets is our young and well-qualified workforce with experience in the energy industry. Going forward, we need to ensure that Albertans have opportunities to learn the right skills to participate in the hydrogen economy. As this industry develops, it will be crucial to monitor labour needs for the right training and skills to create jobs across Alberta.

Our proposal includes developing strong health and safety rules that protect workers. Handling hydrogen will require specific Occupational Health & Safety rules to ensure its flammable and explosive nature is managed safely and that workers are not put in harm's way. These rules will help Albertans feel confident in the safety of hydrogen.

#### DEVELOP A PROPER REGULATORY ENVIRONMENT

We need a regulatory regime that addresses the challenges of a growing hydrogen industry. To move forward with an ambitious strategy, we will need to ensure that the rules are clear for industry and Albertans can feel confident in the safety of hydrogen applications.

In order to strike the right balance, our regulatory system must ensure the safety of Albertans, protect Alberta's interests in terms of royalties and revenues, and provide clear, consistent rules that invite investment without the fear of court challenges.

To have the best possible regulatory environment we would study regulations in other jurisdictions closely to understand exactly what is the right approach.

The hydrogen market is rapidly developing. Over the next years it will be critical to monitor emerging hydrogen regulations as international standards and codes change and adapt. This is why establishing a robust foundation now is critical to being able to adjust to future developments.

#### FACILITATE PARTNERSHIPS IN THE PROVINCE AND INTERJURISDICTIONAL COOPERATION

Partnerships can be a great opportunity for companies to develop expertise, innovate and enter new markets. We would work with industry to facilitate cooperation on innovative hydrogen opportunities.

This will be an important step in building our hydrogen capacity and ensuring that Alberta is a hydrogen producer of choice. This will make Alberta a leader in the industry and build ties between businesses and other jurisdictions.





#### FUND NEW RESEARCH ON HYDROGEN

Our research institutions and Alberta Innovates can be great resources for our industry. They produce talent and innovation that can help establish Alberta as a leader in the hydrogen economy.

Cuts to Alberta post-secondary institutions by the UCP have limited the ability of institutions to respond to these demands. This is why it is important to properly fund and support post-secondary to create long-term economic value.

#### SUPPORT PILOT PROGRAMS AND INNOVATION

More testing and research will be needed to create industry confidence in hydrogen investments. Our proposal will support activities that will enable industry to pilot, test, and research hydrogen applications so they can develop their expertise in this area. This will help our industry become a leader in hydrogen and develop innovative solutions faster.

The Natural Gas Challenge through Emissions Reduction Alberta demonstrates that there is significant interest in developing hydrogen solutions. While innovation challenges can be one option going forward, we would set up a variety of options so innovators can find the right fit for them. For example, this would include a variety of options in hydrogen hubs functioning similar to accelerators in the digital industry. Further, we have seen in other jurisdictions and industries such as the National Innovation Program for Hydrogen and Fuel Cell Technology in Germany that target grants for R&D or pilot projects can be very effective.

Going forward we would explore the viability for Alberta to implement a program similar to Saskatchewan's Petroleum Innovation Incentive that offers royalty credits to innovative projects in the energy space. The program has been able to attract a number of projects including a hydrogen project.

#### REDUCE CARBON INTENSITY OF HYDROGEN PRODUCED IN ALBERTA

World energy markets are moving to become carbon neutral by 2050. When combined with consumer demand and investment towards lower carbon energy, this presents an opportunity for Alberta to be a leader in zero-emission hydrogen production.

While hydrogen in itself represents an opportunity to significantly lower emissions, there is a potential of GHG emissions along the supply chain of hydrogen. That is why we would work with Emissions Reduction Alberta and industry to continuously reduce the carbon intensity of our hydrogen industry.

## **Potential Costs**

The costs detailed on this page are neither prescriptive nor exact. They represent a range based on preliminary study and conversation with experts in the field. They're offered solely as means to provide a sense of the scope that would likely be required to achieve these objectives. This is not a budget, this is merely a starting point to facilitate discussion. We welcome feedback on the costing of each proposal put forward as part of Alberta's Future.

POLICY	Estimated Cost (in million CAD)
Lead a comprehensive conversation and study on the safety, business case, market interest and feasibility of an export hydrogen pipeline and consider a loan guarantee program to support projects that meet strict criteria	<b>10</b> The funding would allow for the establishing of a strategic task force as well as the comprehensive study of the business case for exporting hydrogen.
Work with industry and communities for Made-In-Alberta Hydrogen Hubs	<b>50</b> With an initial investment of \$50 million, Alberta could develop two Hydrogen Hubs. For reference, the Australian state Tasmania's \$48 million Hydrogen strategy includes two hydrogen hubs. The HEAVENN Hub in the Northern Netherlands received around \$31 million CAD in direct investment from the government.
Work with communities, farms or industrial operations on potential hydrogen applications	<b>50</b> Based on experiences from the Community Generation Capacity Building Program and Green Loan Guarantee program, we propose an initial investment of \$50 million in order to support a number of programs.
Conduct and inventory of current hydrogen infrastructure	<b>20</b> We propose an investment of \$20 million for a mix of loan guarantees, grants and royalty credits. We would take inventory of our current infrastructure through the departments of infrastructure and energy. According to the US National Renewable Energy Laboratory a hydrogen refueling station would cost between US \$2.65 and \$5.05 million (CAD \$3.5 – \$6.65 million).

POLICY	Estimated Cost (in million CAD)
Develop an incentive program for larger Hydrogen projects	<b>100</b> We propose an initial investment of \$100 million in royalty credits as a way to incent companies to invest in a large hydrogen project in Alberta. This proposal has the potential to be the most ambitious of its kind when it rolls out.
Attract skill and developing homegrown talent	<b>O</b> This work would be performed through Alberta Labour and Immigration.
Develop a proper regulatory environment	<b>O</b> This work would be done through the departments of Labour and Immigration as well as Advanced Education.
Facilitate partnerships in the province and interjurisdictional cooperation	O We expect that this work can be done through Alberta Energy, the Jobs, Economy and Innovation, Budgets of Universities and Alberta Innovates.
Fund new research on hydrogen	<b>50</b> We estimate that \$50 million would help to move a number of research projects forward.
Support pilot programs and innovation	<b>70</b> We propose an investment of \$70 million to support innovative projects and pilots. This would also support pilots for important priorities laid out in this paper.
Reduce carbon intensity of Hydrogen produced in Alberta	<b>O</b> This work will be done through Emissions Reductions Alberta and expect that this work can be done with its budget.
TOTAL	350

# Conclusion

This discussion paper is only the first to come in a series outlining different opportunities to build a modern, diversified economy.

#### Our ideas are built around five principles:

- Job security for Albertans;
- Equity and inclusion of all Albertans;
- Diversification as a priority;
- The recognition of the role of the Public Service in growing the economy;
- and the rejection of a race to the bottom.

Our hydrogen proposal leverages existing strength in oil and gas to build a long-term, sustainable future for our energy industry.

We've done this before.

More than 40 years ago, Peter Lougheed shared a vision for strategic public investments in developing the oilands. He recognized that Alberta's natural resources are owned by all Albertans, and that the government had a role in helping the industry develop and generate good jobs for Albertans for decades.

Today, we need a plan for the next 40 years. Our hydrogen proposals demonstrate that we can build on the incredibly skilled workforce we have today across all parts of the energy sector to ensure meaningful work in the economy of the future.

Producing and exporting hydrogen is just one part of the bigger picture for where Alberta needs to be in the global economy of tomorrow. It is not the only solution. There is much more work to do. That is why we are developing these proposals with all Albertans, ensuring we have a plan that matches the ambition, ingenuity, determination, and grit that Albertans exemplify each and every day.

By working together, we can create a stronger economy for tomorrow. It starts now.

#### And it starts with you.



## **Give Us Feedback**

## WE WANT YOUR FEEDBACK

Alberta's Future is an initiative to build a new economy that benefits every person in our province. We want you to share your thoughts and ideas on proposals like this one.

We welcome you to submit your own proposals too!

All of our proposals and those contributed by Albertans like you can be found at **AlbertasFuture.ca**. On that website, you can also register for in-person and online conversations happening right across Alberta.

We are also hosting this conversation on social media, using the hashtag **#ABFuture** 

Engage directly with NDP Leader Rachel Notley on YouTube, Twitter, Instagram, and Facebook



