BRIDGING THE DIGITAL DIVIDE

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Alberta's
NDP Caucus

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Table of Contents

MESSAGE FROM
NDP LEADER RACHEL NOTLEY

Access to broadband infrastructure is essential. It's part of social and economic infrastructure that supports everything we do. It underpins our entire way of life and modern economy. Similar to roads, bridges, and electricity, it is core infrastructure in the 21st century that will provide the foundation for economic diversification across the province. Education, health care, business, and access to government services all rely on access to high-speed internet.

Even before the pandemic, we were becoming increasingly dependent on technology as a society. But with the arrival of COVID-19, that reliance has only increased.

As Albertans were forced to work or attended school virtually during the pandemic, many were unable to do so due to a lack of access to broadband. This resulted in a growing digital divide between those who have access to broadband and those who don't. It meant that Albertans living in rural and remote communities have lost opportunities and risk being left further behind.

We need to reverse this trend and bridge the digital divide.

Doing so will allow all Albertans to seek out new education and training opportunities, get faster access to health care, and expand their business. This is critical for building strong, sustainable rural communities.

The sooner we can achieve universal broadband access, the more of a competitive advantage we will have over other jurisdictions. This will attract new investment, diversify our economy, and create jobs. But we can't do this alone. It will take all Albertans working together to achieve our shared goal.

If we come together, we can achieve universal broadband access in Alberta within one mandate, and no later than 2027.

We will accomplish this by bringing all levels of government, Indigenous communities, and the private sector together so they have a voice at the table. In addition, we will advocate to the federal government for fairer regulations and introduce legislation to ensure that we can build broadband infrastructure in a timely and efficient manner.

This will be accomplished through a competitive funding model that will be underwritten by robust provincial investment.

I look forward to engaging with you on this continuing work to address the growing affordability crisis impacting Albertans.

Until then, I encourage your feedback on our latest Alberta's Future proposal: *Bridging the Digital Divide.*

Rachel Notley

MESSAGE FROM
NDP SERVICE ALBERTA CRITIC JON CARSON

Last year our caucus launched the Alberta's Future project, our vision for an Alberta economy that works for everyone.

To date, we have had more than 50,000 Albertans engage with our proposals.

We've run more than 30 engagement sessions, including sessions on rural broadband, and dozens of one-on-one meetings in our effort to unite Albertans of all political stripes around a shared economic roadmap.

We've released proposals on developing our hydrogen, geothermal and using bitumen for purposes beyond combustion. We've put forward ideas on growing our tech sector and building better infrastructure to support our economy.

This proposal focuses on how we can achieve universal broadband access in one electoral mandate, by 2027. While these ideas are the result of consultation with Albertans, we will continue to engage and look for opportunities for improvement to ensure that we put forward the most effective plan that works for Albertans.

Over the last year we heard clearly that universal access to high speed internet is essential, and that any effective strategy to connect Alberta had to be focused on collaboration and outcomes. We also heard loudly that many Albertans were feeling left behind. People want a plan that moves quickly, and reflects the real challenges of bringing broadband to all Albertans: difficult geography, low population density, and challenging economics. This feedback has been central to the development of this proposal.

As we move forward, my commitment is to continue to consult with my fellow Albertans. With your feedback, we are open to refining elements of this plan. But our commitment is clear: we will connect all Albertans within four years, or one electoral mandate.

I look forward to the discussions ahead.

MESSAGE FROM
NDP ECONOMIC DEVELOPMENT AND INNOVATION CRITIC DERON BILOUS

Access to high-speed broadband has become a necessity for Albertans, and demand has been increasing exponentially. We see it in our daily lives, more than ever since living through a global pandemic, as the way we bank, get entertainment, access health services, and conduct business has moved online.

We have seen the power of technology to reshape our economy and our society. Over 100 years ago, telephone services came to Alberta and laying the critical infrastructure for that connected Albertans, and drove productivity growth. It also laid the foundation for adaptive technologies like fax machines and dial-up internet that were at one point inconceivable, but became fixtures of our economy.

Today, many Albertans are experiencing the marvels of another technological revolution: high-speed broadband internet, with all the promise and opportunity that affords. But some Albertans are being left behind.

While there is no universal agreement due to poor data tracking, the best estimate is that nearly 200,000 Alberta households don't have access to broadband speeds. According to Cybera's State of Alberta Digital Infrastructure Report 2021, only 33 per cent of rural Albertans had access to high speed internet. Simply put, there is a digital divide in our province. Lack of broadband access is limiting the economic potential of rural Alberta, and delaying efforts to grow and diversify our economy.

In our globalized economy, we can't compete if we can't connect. In order to unlock our economic potential, we can't leave large segments of our province behind. This proposal is designed to connect all Albertans, and end the digital divide.

MESSAGE FROM
NDP AGRICULTURE AND FORESTRY AND RURAL ECONOMIC DEVELOPMENT CRITIC HEATHER SWEET

As we launch our broadband strategy to ensure all Albertans are connected to high-speed internet, it is important to reflect on just how quickly our society and economy are changing.

Twenty years ago, most rural Albertans couldn't imagine a scenario where their combine could be pinged by a satellite, to diagnose why it wasn't working. Today, the connected farm has arrived. Rural connectivity is driving increases in agricultural productivity, and precision agriculture is no longer a hypothetical discussion, it is driving business decision making on the farm. Connectivity has the potential to spur innovation, productivity, and efficiency in Alberta's oldest and most durable industry.

The past few years have demonstrated just how essential it is to be connected. And the pandemic added a point of emphasis.

Rural Alberta communities cannot succeed if they aren't connected. High-speed internet is essential. It affects everything from the family farm, to whether towns and counties can attract big city folks to live and enjoy rural Alberta's terrific quality of life.

If we are going to move together as a province and embrace the future, we can't leave anyone behind.

The digital divide is real. And the feeling from many rural Albertans that they are being left behind is grounded in reality. Parking lot broadband isn't a solution, but it is the lived experience of far too many Albertans.

As our society and technology evolve, our commitment to rural Alberta is that we will not leave you behind. We will declare what is self-evidently true: access to broadband is essential. And we will marshall the resources and ingenuity of Albertans to ensure everyone is connected to high-speed internet within four years.

RESPONSE TO GOVERNMENT POLICY

In Budget 2020, the UCP government announced that they were working on a broadband strategy. They later provided additional details about ongoing efforts, which included:

- Advocating to the federal government on broadband funding issues;
- Providing support to applications to the Canadian Radio-television and Telecommunications Commission (CRTC) Broadband Fund;
- Providing feedback on the design of the Universal Broadband Fund; and
- Ensuring the federal government to recognize the investment Alberta has already made in broadband through the provincial SuperNet.

In July 2021, the province announced a commitment of $150 million in funding to increase access to high-speed internet in rural, remote, and Indigenous communities to attract funding from private companies and the federal government.

The government estimates it will take a total investment of $1 billion to provide universal access.

We have heard from Albertans that while they appreciated the government's announcement, the lack of coherent strategy was a disappointment. We also heard that high-level provincial objectives and relying on Ottawa to fix the digital divide isn't good enough.

Rural Albertans want details, they want timelines, and most importantly, they want action.

If we are going to connect all Albertans, we are going to need provincial leadership. Through our Alberta's Future project, we are providing that leadership.

Our broadband strategy is ambitious. It has clear timelines to achieve universal broadband access, with specific details on how funding will be deployed, resources marshalled, and on how government will partner with stakeholders so we all pull in the same direction. This proposal also benefited from some innovative ideas from other jurisdictions that are producing real results and demonstrating that we can do this. We heard clearly that the solutions are out there, we just need to act, deliberately and strategically.

BACKGROUND
THE PROBLEM WE ARE TRYING TO SOLVE

While our reliance on high-speed, affordable internet increased with the COVID-19 pandemic, the gap between those who have access and those who don't – known as the digital divide — grew.

While there is not universal agreement, most experts believe that there are 200,000 rural Alberta households that don't have access to high-speed internet, defined as reliable service with download speeds of at least 50 megabits per second (Mbps) and upload speeds of 10 Mbps.

HOW DO WE CONNECT THESE 200,000 RURAL ALBERTA HOUSEHOLDS, SO THAT NOBODY IS LEFT BEHIND?

HOW DO WE DO IT ON A RELATIVELY SHORT TIMELINE, AND IN A FINANCIALLY RESPONSIBLE WAY?

While the problem we are trying to solve is straightforward, the challenges are significant.

If there was a straightforward business case that could overcome these challenges and connect all Albertans, the private sector would act.

We aren't experiencing a traditional market failure when it comes to connectivity.

We need to be clear: in many cases, the economics don't work for an ISP to provide reliable and cost-effective broadband speeds due to a range of factors. These include insufficient population density to create viable economies of scale for private sector operators to, on their own, invest the required capital and provide service. Challenging geography including shale and rocky terrain, and significant problems with trees, hills and valleys that

interrupt "line of sight", all contribute to the economic problem.

We are also challenged by a federal regulatory regime that has laudable goals, like encouraging more market competition, but whose framework results in valuable spectrum in Alberta going unused.

Finally, as a province, we are challenged by a lack of coordination. Absent provincial leadership, communities have been left on their own to hire consultants, while attempting to nudge and cajole ISPs to introduce or improve local service. This lack of coordination results in missed opportunities, with better and cheaper solutions being left on the table. Most Alberta municipalities are not internet service providers, nor do they have the resources or expertise to bring broadband access to their communities in a way that is financially accessible. Yet, these municipalities are acting because the province is not, and it is their only option.

The lack of effective provincial leadership and coordination in Alberta has also affected our ability to access federal dollars through the Universal Broadband Fund (UBF), and to expedite building basic infrastructure. Through our consultations, we heard repeatedly that British Columbia and Quebec had effective models to secure federal funding, and Ontario had introduced innovative legislation and a smart provincial funding model to advance their connectivity strategy.

Solving the problem of connecting all Albertans will require provincial leadership. Our strategy is designed to overcome the challenges we know exist, and get the job done.

COSTS AND BENEFITS

Alberta, like Canada, has always been challenged with deploying core instructure due to our low population density in relation to our geographic footprint. This has held true for our rail lines, our roads, and our water, gas, telephone, and electrical infrastructure. And it holds true for broadband infrastructure.

Through our consultations, we heard repeatedly from stakeholders that the total capital investment needed to achieve universal access to high-speed internet was estimated at roughly $1 billion. This investment includes both private and public funds.

While there is broad agreement on the costs to build this critical infrastructure, there is less agreement on the scale of the long term benefits, though they are expected to be significant. As SouthGrow's cost-benefit analysis of Alberta Rural Broadband Deployment notes, basic infrastructure is often monetized by future inventions that weren't conceivable at the time of deployment. Consider the classic example of telephone lines and fax machines. While telephone lines were deployed in the 1900s in Alberta, it would take another 60 years before Xerox patented the first commercial fax machine, and it wasn't until a decade later that this technology was reshaping how business was conducted.

The only serious study of the cost-benefit of rural deployment of universal broadband in Alberta came through the aforementioned 2019 SouthGrow study. They conservatively modelled two scenarios to achieve universality, and in both cases, the benefits far outweighed the costs: between 2.97 - 3.23 : 1.

While we are witnessing exponential benefits of digital connectivity, we can look to the recent past and comparator jurisdictions to give us a sense of what the impacts of universal high-speed access will be for Albertans . Employing Deloitte's 2021 retrospective analysis of increased employment and GDP growth in the USA resulting from increased rural broadband penetration, **we can conservatively infer that Alberta would see an additional 18,700 jobs within five years, and an additional $4 billion in GDP**. It is expected that within six years, the public investments laid out in this plan will be fully recouped through additional income taxes generated off of GDP growth. Investments in digital connectivity are more than worth the price.
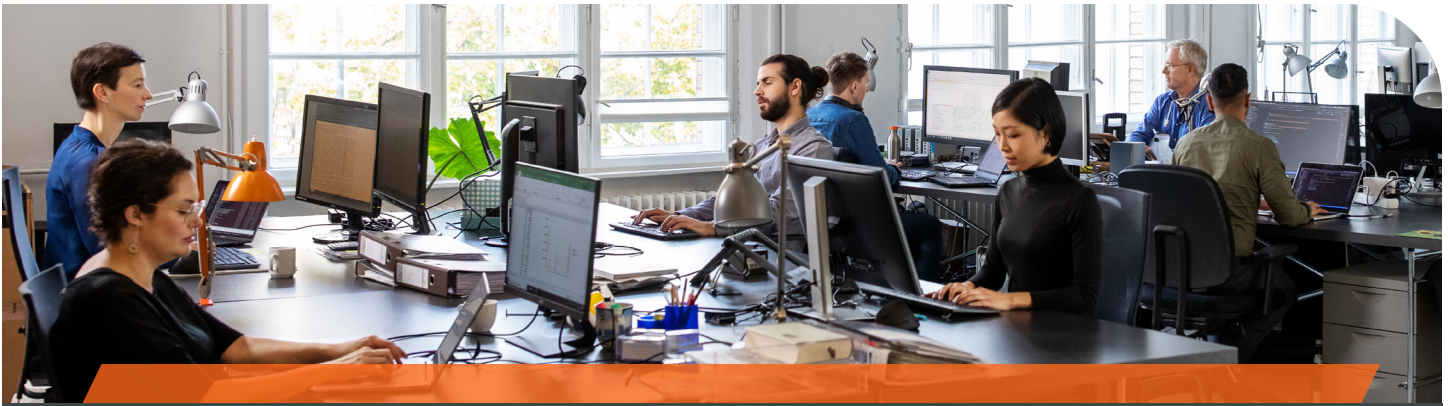
PROPOSALS

By achieving universal broadband access, Albertans can fully realize the benefits and take advantage of the opportunity that it offers. Given the importance and the opportunity it presents, we must achieve universal access as quickly as possible and in a way that provides good value for Albertans.

1. DECLARE BROADBAND ACCESS ESSENTIAL

Similar to the 2016 CRTC ruling, the Government of Alberta will declare broadband access as essential. This signals the importance of high-speed internet and commits the Alberta government to implementing a plan that will achieve the CRTC targets within a reasonable timeframe.

2. ACHIEVE UNIVERSAL BROADBAND ACCESS WITHIN ONE MANDATE, NO LATER THAN 2027

An NDP government will achieve universal broadband access within four years of forming government.

Earlier this year, Ontario announced its plan to connect every region to high-speed internet by the end of 2025. While this target is ambitious, it shows that a four year timeline is aligned with other jurisdictions. Unfortunately, the UCP government continues to delay as other provinces move ahead. As a result of this inaction, Alberta loses its competitive advantage and misses opportunities for Albertans, and their businesses.

3. CREATION OF DIGITAL INNOVATION ALBERTA

In order to execute this plan, and deliver on our commitment to connect every Albertan, we are proposing to create a new provincial agency: Digital Innovation Alberta.

This agency will house the expertise required to expand broadband often that exist at the local or provincial level, and be the funding vehicle to bring connectivity to all Albertans.

The new agency will also be tasked with providing something that is sorely lacking in Alberta: providing good, reliable, data. The agency will conduct routine speed and reliability assessment across the province, to get an accurate picture of exactly how many households aren't achieving the minimum CRTC standards.

As we heard through our consultation, advertised speeds of 50/10 that are only achievable at two o'clock in the morning do not equal high speed connectivity.

As Digital Innovation Alberta measures speed and reliability -- the key outcomes we are trying to achieve -- they will report those results publicly, in real time. No longer will organizations like the Rural Municipalities of Alberta (RMA) have to pay for speed testing to demonstrate what we already know: there are gaps in service, and speeds aren't always as advertised. Public reporting, by the province, will improve transparency and accountability.

PROPOSALS

4. BROADBAND ADVISORY GROUP

We will create the Broadband Advisory Group, under the umbrella of Digital Innovation Alberta, to help guide the new agency and execute on this plan.

In addition to the lack of coordination from the provincial government, one impediment to the quick deployment of broadband has been delays in permitting and access to infrastructure and right of ways.

To solve this problem, the province will take on a coordination role through the new agency, and will bring all parties to the table through the Broadband Advisory Group to ensure we are working together, instead of in silos.

The group will act as an advisory capacity, with representation from key stakeholders including Alberta Municipalities, Rural Municipalities of Alberta, Indigenous representatives, ISPs, utilities, gas co-ops, and rural electrification associations. Representatives from key government ministries will also participate in the committee, including Service Alberta, Municipal Affairs, Jobs, Economy and Innovation, Indigenous Relations, Transportation, Infrastructure, Alberta Parks, and Agriculture and Forestry and Rural Economic Development.

By working together, and leveraging the expertise of all stakeholders, we can work towards the same goal in a coordinated fashion. This will ensure broadband is deployed as quickly and efficiently as possible, and we work in unison to serve the interests of Albertans.

5. REGIONAL APPROACH

Broadband is often deployed at the community level. ISPs or municipalities seek to achieve CRTC targets while neighbouring communities may not be included or are bypassed when connecting two different communities. In addition, communities will often submit overlapping and competing applications for federal funding.

To solve this requires taking a big picture approach to ensure nobody is left behind and efforts are coordinated and resources are used efficiently.

However, each area of the province is unique in its needs and a one size fits all approach will not work. The broadband solution for southern Alberta will not be the same as the northern part of the province.

Therefore, the best solution is to divide the province up into regions to help coordinate efforts to allow for economies of scale while still tailoring solutions to the needs of local communities.

6. BUILDING BROADBAND FASTER IN ALBERTA ACT

Within the first year of this plan, we will introduce the Building Broadband Faster In Alberta Act.

In addition to the lack of coordination province, one impediment to the quick deployment of broadband has been delays in permitting and access to infrastructure and right of ways.

The provincial government has a significant role to play in ensuring permitting and access is done in an efficient manner by streamlining processes for the construction, installation, and maintenance of broadband infrastructure projects.

In addition, the government can standardize processes to aid in the deployment of broadband. This includes a 'Dig Once' policy and creating a specification for any road upgrades to include the installation of fibre conduit.

Ontario has been a leader in this space, enacting the Supporting Broadband and Infrastructure Expansion Act, which provides the Minister of Infrastructure with the authority to ensure municipalities and utility companies provide timely access to their infrastructure, including municipal rights-of-way and hydro utility poles, when appropriate.
We will task the Broadband Advisory Group to provide direct input into the Building Broadband Faster in Alberta Act, to ensure that all stakeholders, and their knowledge and expertise, are incorporated.

Digital Innovation Alberta Action Plan

In order to achieve our objectives, we need to get to work quickly. And we know that Alberta will benefit from a regional approach with local solutions.

7. REGIONAL APPROACH

Far too often, broadband is deployed at the community level, without effective coordination. ISPs or municipalities seek to achieve CRTC targets in a specific area, while neighbouring communities may not be included, or are by-passed. The challenge is compounded by differing local communities often submitting overlapping or competing applications for federal funding. We need to fix this problem.

Given Alberta's unique geography and differing population densities, we will take a regional approach to getting broadband to every household. We know that southern Alberta is different from northern Alberta. We will task the agency with doing a province-wide assessment, to determine the regions, and more importantly, determine within those regions how we can go to tender on more local solutions.

8. FUNDING THE BUILD OUT OF BROADBAND

To ensure public dollars are being spent wisely, provincial funding will be provided through a mechanism that induces the best level of competition for as many ISPs as possible of all sizes to bid on local solutions.

In our view, we should only provide a public subsidy if there is no private sector business case to deliver broadband speeds.

Following a provincial assessment, we will go to tender on local solutions, within the broader regional framework, that allows private sector operators to bid. Entities eligible for public funding from the agency must be licensed under the CRTC and can include ISPs, municipalities, or community ownership models. We expect that different technological solutions will work in different local areas. In some places it will be fibre, in others, fixed wireless. We must be focused on outcomes.

In order to ensure that taxpayers are only providing a subsidy on the margins (i.e at

the lowest possible cost to deliver on the commitment) we will employ a reverse auction funding model. This type of funding mechanism is being employed in Ontario for their broadband plan. A reverse auction allows ISPs to bid on how much provincial funding they are seeking to provide high-speed internet access to a community.

As part of our strategy, we will make up to $400 million available to Digital Innovation Alberta to support the build out of capacity through the reverse auction process. We can not rely exclusively on Ottawa to provide funding, and be reliant on their timetables. However, if there are available federal funds, the province will take advantage of those and may be able to reduce its commitment under this strategy. It is widely viewed that roughly $1 billion of both public and private funding is required to reach the remaining 200,000 households that don't have access to broadband speeds. Our financial commitment under this strategy will ensure we can meet our goals.

PROPOSALS

9. SATELLITE SOLUTION TAX CREDIT

While there are gaps in our collective knowledge as a result of poor data, our best estimate is that there are 200,000 Alberta households who don't have access to broadband speeds. Of those 200,000 households, up to 50,000 might not be serviceable with a fibre or fixed wireless solution because the economics don't work with any reasonable amount of public subsidy.

Following a provincial assessment by Digital Innovation Alberta, we will provide a targeted tax credit to those households who can't get traditional high speed service so they can acquire a satellite service solution. The tax credit would allow extremely hard to reach rural Albertans with a subsidy so that their costs are in line with what Albertans in larger centres pay for high speed internet.

The Satellite Solution Tax Credit is estimated at $50/month, or $600/year, for eligible households. While the number of eligible households may be less than 50,000, this strategy commits up to $30 million/year for three years, for a total commitment of $120 million. The tax credit would take effect in year two of the plan, allowing for the eligibility assessment to be conducted in year one.

We don't know what technological solutions will evolve over time. Five years ago, low-Earth orbit satellites that provide consumers with high speed reliable internet weren't part of the popular discussion. Following the completion of this plan, we will review the effectiveness of the tax credit, and assess any future needs and gaps through the Digital Innovation Agency.

10. FEDERAL ADVOCACY - USE IT OR LOSE IT

One hindrance to rapidly deploying broadband is the lack of access to wireless spectrum.

There are ISPs who would deploy capital and build out their network in Alberta, but can't do so because they lack access to spectrum. Meanwhile, other ISPs have access to spectrum in our province, but aren't making use of it.

Therefore, the province will advocate and lobby Ottawa aggressively to adopt a real "Use It, Or Lose It" policy. The federal government is currently consulting on a policy framework to ensure the timely deployment of spectrum, and they are the spectrum regulator. Our position is that if ISPs have access to spectrum, they must use it within a reasonable amount of time, or it should be turned over to others to use.

11. WE ARE TECHNOLOGY AGNOSTIC

Due to the unique needs of each region of the province and constantly changing technology, the government will remain agnostic to the type of technology used to deliver broadband to Albertans.

The focus will be on delivering access to affordable and reliable internet as quickly as possible, regardless of technology. Simply put: we are focused on outcomes, and delivering high speed internet to Albertans.

CONCLUSION

This proposal was developed in consultation with Albertans, and reflects what Albertans told us were their priorities.

It was released at the Fall 2021 Rural Municipalities of Alberta (RMA) convention, in acknowledgement of just how important municipal partners are in delivering universal broadband access to all Albertans.

In the coming weeks and months, following the release of this proposal, we will consult again.
We want your feedback. And we want to get this right.

Ensuring universal access and connectivity for all Albertans is critical to our shared economic prospects, and to ensure all Albertans can access the services they rely on, like healthcare and education.

The pandemic has reinforced just how important connectivity is. We can't leave some Albertans behind. The digital divide is real, and we must build a bridge. We owe it to ourselves, to allow all Albertans the opportunity to participate.

Please, send us your comments, and your ideas.

The Alberta's Future project is designed to be collaborative. And these proposals are open to revision. That is the point. We can only succeed when we take advantage of the ingenuity of all Albertans.

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

@RachelNotley

Alberta's FUTURE.ca