



**Written Submission for the Pre-Budget Consultations in  
Advance of the 2023 Federal Budget**

**By: TELUS Corporation**

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## Submission Summary

Canadians are dependent on communications networks and digital infrastructure. Businesses need access to high-speed internet more than ever. The pandemic has exacerbated digital divides.

The networks and services TELUS provides are a crucial piece of digital, economic, and social infrastructure. This critical infrastructure will also help Canada achieve net-zero through emissions avoidance.

At TELUS, we are making the investments necessary to accelerate access to high-speed networks and digital services across Canada.

The challenge of closing the connectivity gap for rural Canada is substantial, but not insurmountable. It will require private and public sector investment of between [\\$6 and \\$10 billion dollars](#) to build out the necessary infrastructure to connect all Canadians. The government's Universal Broadband Fund is helping close the connectivity gap, but more can be done in the upcoming budget to help rural, northern and Indigenous communities. Updated spectrum policy is needed in response to 5G and the challenges of rapid digital transformation.

Additionally, the government has an opportunity to leverage digital policies to reduce the carbon footprint of Canadians and businesses, and better protect critical connectivity infrastructure from damage caused by theft and vandalism by strengthening penalties and providing law enforcement with more resources.

Canada's peers are moving forward on a digital and telecommunications agenda that will position them to attract investment in high-growth sectors and advance economic and social inclusion. Canada must do likewise.

## Background

Proudly Canadian, TELUS is committed to positioning Canada for success in the global digital economy. With over 28,000 employees from coast-to-coast, we are delivering on this commitment and driving better economic, social, environmental and health outcomes for all Canadians.

Since 2000, TELUS has been driven by our social purpose to leverage our global-leading technology to drive social change and enable remarkable human outcomes. We believe in order to succeed as a business, we must be in the business of helping solve the challenges facing Canada and the world.

That is why we continue to invest in world-leading telecom networks, with an emphasis on bridging digital divides in remote, Indigenous and marginalized communities. We know connectivity improves the social, health, educational, and economic outcomes for communities. It's why we invest in TELUS Health and TELUS Agriculture, leveraging data and technology to improve health outcomes, increase food security, and reduce emissions and waste. It's also why we launched the



TELUS Pollinator Fund for Good, one of the world's largest impact investment funds, helping the next generation of social purpose enterprises to scale and flourish.

We are investing billions in our networks in the coming years to help Canada keep up with the pace of global technological change, while driving human progress, social impact, economic inclusion and innovation.

The upcoming budget provides the government with an opportunity to support this agenda and enable Canada to lead in the digital world.

## Recommendations

### **Recommendation 1: Implement strong deployment conditions for all spectrum licenses, including 'use-it-or-lose-it' provisions to ensure spectrum is deployed quickly in rural, remote and Indigenous communities.**

Spectrum is a scarce public resource that should be put to use for the public good. At TELUS, we believe if we are allocated spectrum, we should deploy it quickly to connect Canadians.

This is not universally the case today. Some operators purchase spectrum, and then sit on it as a speculative investment. Rural, remote and Indigenous communities are left without high-speed internet because some operators purchase it with the goal of increasing the value of their investment, not providing services to Canadians.

For example, there is a substantial amount of unused spectrum in rural Alberta in the 600 MHz, 700 MHz, 2500 MHz, and AWS bands, among others. This unused spectrum, held largely by regional carriers, directly affects the government's ability to achieve its connectivity goals.

We recommend that:

- The government impose and enforce effective "use-it-or-lose-it" conditions for all spectrum licenses deemed critical for delivering universal coverage;
- Revoke licenses in areas where companies purchase spectrum but do not deploy within 3 years; and
- "Use-it-or-lose-it" conditions be applied for all spectrum bands once the licenses enter their renewal period.

We believe the only reason to purchase a spectrum license is to deploy networks that connect Canadians to ubiquitous, fast, resilient networks. Relatively simple changes to deployment conditions could ensure all operators are held accountable and live up to this principle.

### **Recommendation 2: Undertake a review and update Canada's spectrum policy to (a) better align with our global peers; (b) deliver better connectivity; (c) transparently assess the evidence on results; and (d) prepare Canada for success with 5G and ongoing digital transformation.**



Countries with effective spectrum policy frameworks are more likely to lead in innovation and social inclusion in the next century. The policies governing the use of spectrum are crucial economic, social, and environmental framework policies.

The policies Canada chooses should encourage rapid deployment of spectrum to connect Canadians. Unimaginable change is taking place across the economy. AI and IoT are transforming how vehicles work, how surgery is performed, how utilities deliver water, and how agriculture is practiced. The pace of investments in 5G will influence whether firms relying on big data analytics and machine learning invest in Canada or go elsewhere. Spectrum policies will be one of the most important determinants of whether Canada leads on wealth creation in the digital economy.

Canada is well-placed to attract investment that will lead to sustainable and inclusive growth – so long as we get our spectrum policy framework right. To start, adopting strong deployment obligations as recommended above is essential. Additionally, we suggest a new spectrum policy framework that would:

- Auction more spectrum, sooner, which countries competing with Canada in the global digital economy are doing; and
- End the use of set-asides in auctions, which have been unsuccessful in delivering rural and Indigenous connectivity.

We should learn from our peers who measure the impact of their policies. Two processes should be followed to more closely mirror global best practices:

- *Prior to a policy decision:* All spectrum consultation papers should include an economic analysis of the options presented conducted by an independent third-party so decision-makers and Canadians can accurately assess the impacts of the proposed policies; and
- *Following a policy decision:* A performance measurement framework should be transparently administered, updated every two years, alongside a requirement for a substantive report on policy impacts five years after each auction. This will enable Canadians and governments to meaningfully assess results.

Additional information on TELUS' spectrum policy recommendations will be available on October 17, 2022 at: <https://www.telus.com/SpectrumPolicy>

### **Recommendation 3: Include digital policy as a formal part of Canada's Climate Action Plan.**

At TELUS, we believe telecom companies and digital technology play an important role in reducing the carbon footprint of firms, governments, organizations and people. Our networks enable carbon avoidance by consumers and businesses and effective telecom policies should be understood as part of a comprehensive climate strategy.

While it is vital telecom and technology companies take action to reduce their own emissions,



digital and telecom policies also have a key role in enabling Canadians and businesses to reduce our collective carbon footprint. Multiple studies - most recently by [Farrpoint](#) - have found digital connectivity and technologies can reduce GHG emissions by up to 20%, however digital policy is not mentioned in the climate action plans of any G7 country, including Canada.

As a country with high-quality telecom networks and high GHG emissions per capita, Canada has an opportunity to become a world leader in digital climate policy and solutions, incentivizing digital uptake across underserved communities, GHG intensive-industries, and the public service.

Specific digital policies that will support progress toward net-zero include:

- Leveraging spectrum policies to ensure the timely and cost-effective deployment of spectrum to support robust networks and connectivity (i.e. use-it-or-lose-it);
- Subsidizing investment in telecom networks in high-cost, underserved regions (e.g., remote and Indigenous regions) and adoption of services in underserved communities (e.g., low income, seniors);
- Incentivizing digital adoption in GHG-intensive industries, including transportation, mining, agriculture, and manufacturing;
- Digitizing the delivery of public services to reduce travel (e.g., telemedicine, social services); and
- Building climate and digital criteria into public service contracts and procurement (e.g., net-zero targets, IoT solutions, Green R&D).

**Recommendation 4: Strengthen penalties and provide law enforcement with more resources to protect connectivity infrastructure from damage caused by theft and vandalism.**

Connectivity has become a critical service for Canadians, businesses, and emergency services and this infrastructure must be adequately protected. While we build-in resiliency and redundancy measures for our networks, unpredictable criminal activity poses a threat and can interrupt services to our customers. The government has made it a priority to ensure Canadians stay connected, particularly to critical services like 911. Law enforcement need more tools to protect this critical infrastructure from damage caused by theft and vandalism.

TELUS has repeatedly experienced copper wire theft from our above ground telephone lines in Alberta, British Columbia and Quebec for many years. When this occurs, service is disrupted and puts the safety of Canadians at risk. For example, in June 2022, 7 telecommunication poles were cut down along a section of the Fraser Highway by cable thieves. Thousands of customers were left without access to critical emergency services.

Currently, the Criminal Code of Canada treats copper wire to be theft of under \$5,000. When arrests do occur, criminals receive minimal charges, and often have cases thrown out due to the low value of the case to prosecutors. Repeat offences are common and the communities we serve continue to be put at risk.



Since 2020, over 150,000 TELUS customers have been impacted and more than 110 million minutes of service have been lost due to cable theft and vandalism. Our national communications infrastructure should be better protected. It delivers essential services and the Criminal Code should reflect this.

**Recommendation 5: Introduce a \$250M Canadian Connectivity Innovation Commercialization Fund (CCIC) to address the commercialization and domestic purchasing deficit in Canada.**

Canada has an opportunity to create jobs and IP as telecom providers move from traditional networks and services to novel network designs like OpenRAN and begin innovating with 5G connectivity.

OpenRAN refers to the shift towards interchangeable equipment in radio networks. Currently, most wireless networks are built with proprietary equipment all provided by one company. In the future, networks may use different parts from different companies. Given there will be substantial opportunity to develop OpenRAN equipment, the government should begin fostering an innovation ecosystem now. In 2022, the United States created a \$1.5B USD fund to support OpenRAN innovation. Canada should follow suit and:

- Establish a traditional 5-year VC fund to kick-start investment in Canadian firms, with a focus on seed and early-stage Canadian tech companies. The fund should adopt a broad definition of 5G related technologies and services so the market can decide which technologies and applications are most promising; and
- Leverage the upcoming mid-band spectrum auction by creating a requirement that operators who secure licenses commit a minimum percentage of their bids to an independent fund that would invest in Canadian controlled private corporations focused on 5G, communications, cloud, security and other relevant ICT companies. Service providers should be able to participate as limited partners in this fund and receive the right to invest individually in the companies of greatest interest.

The transitions taking place globally towards digital systems and net-zero technologies present enormous opportunities for Canadian businesses. Telecom firms are at the heart of both transformations. With appropriate government investments, Canadian firms can lead in the application of new technologies and all Canadians can benefit from the IP that emerges.

## Conclusion

Canada is well positioned to compete in the digital economy, so long as we improve digital access and connectivity across the country. TELUS is committed to connecting Canadians to trustworthy, resilient networks. With the right investments and policies, telecom firms can help the government achieve outcomes that all Canadians care about: innovation and economic growth, social inclusion, and emissions reductions.