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Standing Committee on Industry, Science and Technology

EVIDENCE

Thursday, June 6, 2019

Chair

Mr. Dan Ruimy

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● (0915)

[*English*]

The Chair (Mr. Dan Ruimy (Pitt Meadows—Maple Ridge, Lib.)): Okay, everybody. We only have an hour today, so we'll skip the preliminaries and get right to it.

Welcome to the Standing Committee on Industry, Science and Technology. We pursue the reference from Wednesday, May 8, on the study of M-208 on rural digital infrastructure.

Today we have with us from the CRTC, Christopher Seidl, executive director, telecommunications; Ian Baggley, director general, telecommunications; and Renée Doiron, director, broadband and network engineering.

From the Canadian Wireless Telecommunications Association, we have Robert Ghiz, president and chief executive officer; and Eric Smith, vice-president, regulatory affairs.

From Telesat Canada we have Daniel Goldberg, president and chief executive officer; and Michele Beck, vice-president of sales, North America.

Welcome, everybody. We have a very short agenda today so you each have five minutes for your presentation and then we'll go into our rounds of questions. We'll be starting off with the CRTC, Mr. Seidl.

Mr. Christopher Seidl (Executive Director, Telecommunications, Canadian Radio-television and Telecommunications Commission): Thank you, Mr. Chairman.

We appreciate this opportunity to contribute to your committee's study of M-208. This study addresses important areas within the scope of Canada's telecommunications regulators, being Innovation, Science and Economic Development Canada as a spectrum regulator, and the CRTC.

Reliable and accessible digital infrastructure is indispensable to individuals, public institutions and businesses of all sizes in today's world, regardless of where Canadians live.

[*Translation*]

That's why, in December 2016, the commission announced that broadband Internet is now considered a basic telecommunications service.

The CRTC's universal service objective calls for all Canadians to have access to fixed broadband at download speeds of at least 50 megabits per second (Mbps) and upload speeds of 10 Mbps, as well as an unlimited data option.

As well, the latest mobile wireless technology not only needs to be available to all homes and businesses, but also along major Canadian roads. Our goal is to achieve 90% coverage by the end of 2021 and 100% as soon as possible within the following decade. We want all Canadians—in rural and remote areas as well as in urban centres—to have access to voice and broadband Internet services on fixed and mobile wireless networks so they can be connected and effectively participate in the digital economy. Reaching this goal will require the efforts of federal, provincial and territorial governments, as well as of the private sector.

[*English*]

We're taking action on multiple fronts to realize that goal. One of our most important initiatives this year is the CRTC broadband fund. The commission established the fund to improve broadband services in rural and remote regions that lack an acceptable level of access. The broadband fund will disburse up to $750 million over the first five years to build or upgrade access in transport infrastructure by fixed and mobile wireless broadband Internet services in underserved areas.

The contributions to the broadband fund are collected from telecommunications service providers based on their revenue.

The fund is meant to be complementary to, but not a replacement for, existing and future private investment and public funding. Up to 10% of the annual amount will be provided to satellite-dependent communities. Special consideration may also be given to projects targeted to indigenous or official language minority communities.

Earlier this week, we launched the first call for applications for funding from the broadband fund for projects in Canada's three territories as well as in satellite-dependent communities. According to the latest data, no households north of 60 currently have access to a broadband Internet service that meets the CRTC's universal service objective. Only about one quarter of major roads in the territories are covered by LTE mobile wireless service.

The digital divide is also evident in satellite-dependent communities across the country where there is no terrestrial connectivity.

Canadian corporations of all sizes: provincial, territorial and municipal government organizations; band councils and indigenous governments with the necessary experience or a consortium composed of any of these parties can apply for funding.

The CRTC will announce the selected projects from the first call for applications in 2020. A second call, open to all types of projects and all regions in Canada, will be launched this fall.

The CRTC's fund is only one part of the work that must be accomplished by the public and private sectors. To this end, we noted in the most recent federal budget a commitment of $1.7 billion in new funding to provide high-speed Internet to all Canadians. The government intends to coordinate its activities with the provinces, territories and federal institutions such as the CRTC to maximize the impact of these investments.

We support the government's efforts to the extent we can under our mandate and status as an independent regulator.

Mr. Chairman, even with the financial support from the CRTC broadband fund or other public sources, some Internet service providers may still face challenges and barriers that limit their ability to improve broadband access in rural and remote areas.

● (0920)

[*Translation*]

For this reason, we are planning a new proceeding related to rural broadband deployment. We will examine factors such as the availability of both rural transport services and access to support structures. These services are crucial to expand broadband Internet access and to foster competition, particularly in rural and remote areas. Extending broadband to underserved households, businesses and along major roads is an absolute necessity in every corner of the country—including rural and remote areas.

Extending broadband to underserved households, businesses and along major roads is an absolute necessity in every corner of the country—including rural and remote areas.

Access to digital technologies will enhance public safety and enable all Canadians to take advantage of existing and new and innovative digital services that are now central to their daily lives.

[*English*]

I'd be pleased to answer any of your questions.

The Chair: Thank you very much.

We'll move on to the Canadian Wireless Telecommunications Association.

Mr. Ghiz.

Mr. Robert Ghiz (President and Chief Executive Officer, Canadian Wireless Telecommunications Association): Thank you very much.

[*Translation*]

Good morning.

Thank you for giving us the opportunity to speak here this morning.

[*English*]

Motion M-208 asked this committee to study fiscal and regulatory approaches to encourage investment in rural wireless infrastructure.

Since Canada launched wireless services, Canada's facilities-based providers, the companies that invest capital to build networks and acquire spectrum rights, have embraced the challenge of building Canada's wireless network infrastructure across our country's vast and difficult geography.

To date, Canada's facilities-based wireless carriers have invested more than $50 billion to build our wireless networks. This is more, on a relative basis, than any other country in the G7 or Australia. They have also spent approximately $20 billion at spectrum auctions and in annual spectrum licence fees. Our members are also funding the new CRTC broadband fund.

As a result of these investments, Canadians enjoy the second-fastest networks in the world, twice as fast as those of the United States. According to the CRTC, 99% of Canadians have access to LTE wireless networks where they live.

While this is a great achievement, much work remains. In just the last few months we have seen announcements of significant investments that will bring increased coverage to rural areas.

For example, Bell announced expansion of its fixed wireless services to more than 30 small towns and rural communities in Ontario and Quebec. Rogers announced investments of $100 million to bring mobile wireless coverage for 1,000 kilometres of rural and remote highways across Canada. Similar investments are being made by regional wireless providers, such as Freedom Mobile, Vidéotron, Eastlink, Xplornet and SaskTel.

Unfortunately, investment, especially in rural areas, faces an uncertain future. As motion M-208 recognizes, regulation can encourage investment but can also have the opposite effect.

[*Translation*]

Unfortunately, investment, especially in rural areas, faces an uncertain future. As motion 208 recognizes, regulation can encourage investment. But it can also have the opposite effect.

[*English*]

Canada's telecommunications policy has long recognized the importance of facilities-based competition as the best way to encourage investment. Under policies supporting facilities-based competition, sustainable competition in the wireless retail market is starting to gain momentum, resulting in continuing growth in the number of wireless subscribers, increased data consumption, declining prices and more choice for consumers.

Equally important, ongoing investment by Canada's facilities-based carriers is continuing to expand the reach of Canada's wireless networks for both fixed and mobile wireless services. Yet at a time when the government is stressing the importance of continuing to invest in and expand wireless infrastructure and when they are introducing targeted fiscal measures towards this goal, government is considering measures that, if they proceed, will discourage investment and disproportionately harm rural Canadians.

Earlier this year, ISED issued a proposed policy direction that would direct the CRTC to give priority to the goals of increased competition and more affordable prices when making regulatory decisions. We support these goals, but we were surprised by the absence of any mention of investment in infrastructure by facilities-based carriers.

During the consultation period, we've asked the minister to revise the policy direction to include a reference to encourage investment in infrastructure as a key priority for the CRTC. At the same time, as part of its review of the regulatory framework for the wireless industry, the CRTC has stated its preliminary view that mobile virtual network operators or MVNOs should be given mandated wholesale access to the wireless networks of the national wireless providers.

MVNOs do not invest in wireless infrastructure or spectrum. Rather, they pay wholesale rates set by the regulator to use the facilities-based carriers' networks and use this mandated access to compete against facilities-based carriers for subscribers—the very carriers that are making the investments and expanding the networks.

In countries where this has been tried before, it has resulted in significant decreases in network investment. Those same countries are actually now trying to reverse course.

The CRTC has twice previously declined to mandate MVNO access, knowing it would undermine investments in wireless networks. It is not clear why it is now being considered, especially when both ISED and the CRTC have made connecting all Canadians such a large priority.

● (0925)

If government truly believes that connecting Canadians is such a major priority, policies should be aligned with this goal. With respect, today's policy confusion will only harm rural connectivity. We want to work with government. We want to work with the CRTC to ensure that the 99% of coverage goes to 100%, and that Canadians can have access to the best wireless networks in the world.

Thank you very much. We look forward to your questions.

The Chair: Thank you very much.

Moving on to Telesat Canada, Mr. Goldberg, you have five minutes.

Mr. Daniel Goldberg (President and Chief Executive Officer, Telesat Canada): Thank you, Mr. Chairman, for inviting Telesat to participate today. Thanks also to each of the members of this committee for their commitment to improve rural broadband connectivity and to bridge the digital divide in Canada.

It would be difficult for my colleagues and me at Telesat to overstate how strongly we share your objective to deliver in a timely manner affordable, state-of-the art Internet connectivity to the millions of Canadians who lack it today. The good news is that Telesat has a concrete plan to do just that, and we can deliver. Telesat is one of the largest, most innovative and most successful satellite operators in the world. We have a proud 50-year history of delivering mission-critical satellite services to enterprises and governments operating throughout the world, including, of course, right here in Canada, where we started. We have offices and facilities across the globe, but our corporate headquarters is just down the hill on Elgin Street. That's where we fly our global satellite fleet, do all of our R and D and advanced engineering, and otherwise run our business in the highly competitive, rapidly evolving global communications services market. We invite any one of you to come down the street and visit us at our headquarters.

In addition to the millions of Canadians lacking high-quality broadband connectivity, there are another roughly four billion people in the world on the wrong side of the digital divide. Connecting them all is an enormous technical, operational and financial challenge. It's also a critical public interest objective, as well as a compelling business opportunity, for the companies that have the expertise and the ambition to take it on.

Telesat has been working intently on solving this challenge. I'm pleased to say we're on the cusp of moving forward with the most innovative, advanced, powerful and disruptive global broadband infrastructure ever conceived. That's not hyperbole. Specifically, we've designed a constellation of roughly 300 highly advanced satellites flying approximately 1,000 kilometres above the earth. The satellites, which will be connected to each other using optical laser technology, are in a patent-pending, low-earth orbit architecture—hence the term LEO. Picture a fully meshed, highly flexible, space-based Internet infrastructure capable of delivering terabits of fast, affordable, reliable and secure Internet connectivity anywhere in the world, including every square metre of Canada. It's a highly innovative design developed by Telesat's world-class engineers.

Our current satellites are in geostationary orbits nearly 36,000 kilometres above earth. Although there are many benefits from this, a big drawback is the amount of time it takes for signals to travel to and from our satellites. That signal delay is called latency. It's not a big deal when used for broadcasting TV shows to households, but it's a very big deal when trying to provide the kind of super-fast, low-latency broadband you need to surf the Internet, engage in e-commerce or use other Internet applications like e-health and distance education. Low latency is going to be even more critical in a 5G world. By moving the satellites roughly 30 times closer to earth, our LEO constellation can deliver connectivity with latency equal to, or better than, that which fibre or terrestrial wireless services can achieve.

At Telesat, we don't provide broadband service directly to consumers. Instead, we provide a broadband pipe to telephone companies, mobile network operators and ISPs, who then provide the last-mile connection to rural consumers and other users. Telesat's LEO constellation will support delivery of affordable Internet connectivity with minimum speeds matching the CRTC-mandated 50 megabits down, 10 megabits back, and it can readily reach gigabit speeds. Telesat LEO will also help wireless carriers to economically extend the boundaries of where they can provide both LTE and 5G.

We plan to select a prime contractor to build the Telesat LEO constellation in the coming months. Our objective is to start launching satellites in 2021, begin service in Canada's north in mid-2022 and commence full global service in 2023.

Although other companies—including Amazon, SpaceX and SoftBank—also have plans to develop LEO constellations, Telesat has a significant competitive advantage by virtue of our deep technical resources, strong track record of innovation and un-surpassed commercial and regulatory expertise.

● (0930)

In this regard, Telesat's LEO constellation represents not only the best opportunity to definitively bridge the digital divide, but also a unique opportunity for a Canadian company—and the Canadian space industry more broadly—to take the lead in the burgeoning new space economy. That, in turn, will promote sustainable high-tech job creation and economic growth throughout the country for years to come.

With industry and government working together, the Telesat LEO constellation will revolutionize the delivery of high-performing, affordable broadband service throughout Canada and the rest of the world. It will also place Canada at the forefront of the new space economy.

Thank you.

The Chair: Thank you very much. We're going to move right into questions.

We're going to start with Mr. Amos. You have seven minutes.

Mr. William Amos (Pontiac, Lib.): Thank you. I'll be sharing my time, if there's any left, with Member Graham. I'm going to be very clipped in my questions; we only have a very short period of time.

My first question is to our hard-working public servants at the CRTC. Thank you for being here.

My 41 mayors in the Pontiac are very frustrated with the state of Internet. Our constituents are extremely dissatisfied. When I knock on doors, this is a top issue. I would be telling an untruth if I didn't say that the disappointment was palpable when I had to inform constituents that the first call for applications for the CRTC broadband fund was only open to the Yukon, Northwest Territories and Nunavut. Can you please explain that?

Mr. Christopher Seidl: Absolutely. We defined the first call for applications for the territories plus satellite-dependent communities —in other words, the north, where we felt the need was the greatest. That's the start of the commission's approach.

We did announce that we will be having a call in the fall for the rest of Canada, including all regions of Canada and all project types —be it transport, access or mobile—following the first call. We wanted to really address the areas where we felt the need was the greatest, which was the north, including those satellite-dependent communities. In 2016 we set aside a maximum of 10% of the fund for those satellite-dependent communities. We wanted to start there as a first step to get some decisions out quickly, and then look at the larger problem in the rest of Canada—again, including the north.

● (0935)

Mr. William Amos: I appreciate that. I have questions in the back of my mind. Perhaps this could be responded to in writing. On what basis was that determination of greatest need made? It can't have been made on a population basis. I'm just trying to channel the frustrations of so many constituents and mayors. I don't mean to direct it toward the CRTC as an institution, but to the situation.

The CRTC's "Let's Talk Broadband" report was finalized in December of 2016. At that time, it was announced that there would be a fund established—all good ideas. It's taken a very long time to get to this point right now, where my constituents and my mayors look at me and say that they still can't even apply for funding through the CRTC.

Mr. Christopher Seidl: We do run all our proceedings through an open public process where everybody has a voice—it's very transparent—to get that decision out and get the best solution out there from everybody involved. That obviously does take some time. We had a few processes to get to where we are now. I think we've probably gone as fast as we could have on any of those activities.

We do share the desire to get broadband everywhere, but it is a shared responsibility. We are only one piece of the solution for the $750 million. In 2016, and many times, we said that it's a shared leadership from private and public sectors; all levels of government have to step up to the table to solve the digital divide.

Mr. William Amos: To go specifically to the issue of cellular coverage, which has become a major discussion point, particularly around public safety.... This national capital region and my riding of Pontiac have gone through two tornadoes and two floods in the last three years. Your remarks this morning do not address the issue of cellular.

I wonder to what extent you think that gaps in wireless coverage... so people can use mobile telephones for any reason, including public safety.... To what extent do you feel like we're on the right path now toward addressing that, with the $750-million fund and the investments that have been made available by our government?

Mr. Christopher Seidl: In my opening remarks I did mention a few times that our basic service includes mobile. I think we're one of the first countries that includes mobile as part of our basic service where everybody should have that—not just in households, but on all major roads in Canada. We have that included in our eligible projects in both calls for applications that we have identified.

I think it's very important to get that in place. We do have fairly extensive coverage right now. There are still people without it, but we're at 99.4% coverage of mobile right now—98.5% for the latest technology—for households. About 10% of our major roads are not covered right now, so that is certainly a public safety issue that needs to be addressed. Obviously, that's where the business case is the hardest for anybody—to build out those long stretches of highway. As I mentioned, only 25% in the north carries.... That would be one of our first calls, in an area where there are long stretches where people don't have any connectivity and no other services around. It really is an issue that is exacerbated in that area.

Mr. William Amos: I have two minutes. I don't want to completely run out the clock, so I'll pass it over to member Graham.

Mr. David de Burgh Graham (Laurentides—Labelle, Lib.): Thank you. I appreciate it.

To Mr. Ghiz, it's very rare that I'll say this, but I think I agree with everything you've said. With the [*Inaudible—Editor*], that doesn't happen too often. I appreciate having this opportunity.

When the CRTC mandate Minister Bains announced recently talked about competition, my concern was: what is the point of competition, if you don't have service to begin with? The biggest issue I have is this. Mr. Amos' riding and my riding are neighbouring. Together, they are much larger than Belgium. It's a very big territory. I have entire communities that have neither Internet nor cellphones. How do we get those communities connected on cellphones, so that emergency services, as Mr. Amos was talking about, don't have to meet at city hall every hour, and then go back out onto the ground? What's the fastest path to getting proper coverage of all our small towns?

Mr. Robert Ghiz: Great question.

You heard from the CRTC, and us. It's not easy, and doesn't always make economical sense. I think government now, and in the past, has been on the right path, in terms of supporting facilities-based carriers, because they're the ones that build the networks. Has coverage increased fast enough for everyone? I like to say that when we use the number 99%, with 35 million Canadians, that means there are still 350,000 Canadians who don't have access. You don't hear

from the 34 million or 32 million who have it. You hear from the ones who don't have it.

What we need to do, moving into the future, is look at regulations —and this is why this motion is important—on how that connectivity is going to happen that much faster. I've listed a couple of things, but the announcement of the capital cost allowance was extremely beneficial, and encouraged investment to happen. We have the connect fund at ISED, which is very good. We have the CRTC fund, which our members are funding. Provinces have their own funds. Some municipalities have their own funds, such as EORN.

I think the key to all of that is coordination amongst them all, and also flexibility in the funds. SaskTel is one of our members. I was talking to them the other day. They have a large province. They want to see flexibility in these funds, so that broadband includes fixed wireless as well.

● (0940)

Mr. David de Burgh Graham: Thank you.

The Chair: We're going to move on to Mr. Albas.

You have seven minutes.

Mr. Dan Albas (Central Okanagan—Similkameen—Nicola, CPC): Thank you, Mr. Chair.

Thank you to all our witnesses for coming and sharing your expertise with our committee today.

I'd like to start by addressing something I heard today and something that has come up recently. First of all, to the CRTC, Mr. Amos has expressed frustration with the choice of starting with many of those rural and remote northern communities. Considering that many of them have very little, if no, coverage, because of market failure or cost, I can see why you'd want to start there. People who live that far away are Canadians too, and deserve to have the benefit of those kinds of programs. We should always be mindful of putting those who have the least first.

The government has announced a clawback of 3,500 MHz spectrum currently owned by, among others, Xplornet, which we heard from on Tuesday. When I asked about the impacts, they said they would be significant. I know the government has made some slight alterations to their plan, but it's still a major clawback.

I think it's somewhat absurd to study rural connectivity and not address the fact that a government decision may have cut off the Internet connections of thousands of rural customers. I'm prepared to move a motion to study this, but I'm also aware of the lack of time to do so, with the end of session fast approaching.

I think we must engage with the fact that we're talking about ways to increase rural connectivity, but the government is reducing it. In my opinion, we should at least make reference to the decision, and its impacts, in the report, or find out from the affected companies how many people will be affected by this policy choice.

I want to ensure the witnesses who made time for the committee have a chance to answer questions, so I'm going to end there. I hope the Liberal members who are clearly concerned about rural connectivity are willing to address the fact that the government may have just put a hatchet to it.

To the CRTC, I'm hoping you'll further indulge me for a quick second. A colleague has a constituent paying an extra $2.95 administration fee on their bill. They were told by their local provider that it's a mandated CRTC charge that only applies to a specific geographic area. If you can't answer this, could you please get me in touch with someone in your organization, so we can talk about the issue?

Mr. Christopher Seidl: Do you know what the bill item is for?

Mr. Dan Albas: It just says "admin fee" on the line item, and when the constituent phoned and asked, they said that the CRTC mandated that to their local area to collect that fee and gave no further explanation.

Mr. Christopher Seidl: Where we have tariffed services—this is going back in time now a little bit—local calling regions were extended. There were additional costs associated with that, where we regulated the rates that the incumbent had to provide, and they were allowed to charge extra to extend that local calling to a wider region. That might be what it is.

Mr. Dan Albas: It may be something that the CRTC may want to revisit in terms of transparency so that people can know, because it just says "admin fee" and all people are told is a government body told the local provider to put it on there. I think there should be sufficient transparency on this.

To the CWTA, Mr. Ghiz, thank you for being here.

The minister of ISED said yesterday he did not know where the tipping point is for prices and investment. At what point would the revenue from customers be too low to discourage facility investment? What is the tipping point of your members?

Mr. Robert Ghiz: I'm not going to get into direct costs with our members, but I will say this: the tipping point is looking at the overall public policy. The overall public policy that we've had in Canada now for the last 10 or 15 years, since a policy directive came down in 2006 by the previous government that has been followed through by this government, is that investment by facilities-based carriers is extremely important. If you've looked at what's happened through this program, you have the three national providers, and now you have all these regional providers across the country. What the regional providers are doing is providing more competition, which is allowing prices to go down while also encouraging all members to expand their network so that they can gain new customers.

Just to demonstrate how well it is working right now, in the last quarter, out of all new net subscribers, Freedom and Vidéotron received 84% of those new subscribers, so it's showing that it is working.

I used this in my speech the other day at the telecom conference. It's like your doctor giving you a prescription, an antibiotic, for a cold you had. We had a cold; we had a problem with our wireless coverage and prices across the country. You're given that antibiotic, you take it for four days, and then you think the problem's gone away, even though the prescription said seven days, so you get sicker.

What I'm saying is that we're still in that process of taking our antibiotics to ensure that we can have great networks with reasonable prices in our country. It is working, and we just need more time to allow that to continue.

● (0945)

Mr. Dan Albas: We're studying rural wireless access here, and that is crucial. However, as my colleague has said, access does not mean much if it's too expensive. What kind of guarantees can we get from you and your organization, particularly your members, that expansion of service will not be met with hugely increased fees?

Mr. Robert Ghiz: I think you have to look at it. Our members are not going to go out to build in communities if they're not going to price it at a level that people are going to pay for. I think you get markets that will dictate what will happen, and what you will see is, because you have the new entrants and the three national providers involved, competition is leading to lower prices. I like to point out that, if you look between 2014 and 2018, believe it or not, the price for a gigabit of data has gone down by approximately 54%. It is working, and our members want to continue to build out. They want to work with government, the CRTC and municipalities, but flexibility is going to be a key in that.

Mr. Dan Albas: We certainly all want to have world-class speed and access, but it's clear that, to virtually all Canadians, prices are a barrier to that access. The best coverage in the world does not mean a lot if people can't afford the service. I certainly don't want this to be an argument over these things.

How do you think we can work, government and industry, to see where we have both affordability and access to Internet?

Mr. Robert Ghiz: That's a great question and great point. We believe in quality coverage and affordable prices. The mechanisms that we have in place today are leading towards those lower prices, but now is not the time to pull a 180 and move in a direction that will hurt our new entrants in delivering the competition that will deliver those more affordable prices.

The Chair: Thank you very much.

We're going to move to Mr. Masse.

You have seven minutes.

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Thank you for being here.

Under testimony at another committee, the new Minister of Rural Economic Development has said that none of this motion will be made through either legislation or regulation. That was clarified. I was quite surprised by that, but they are important discussions that we're having. Some of these matters still have time to be done, but unfortunately, the government doesn't seem prepared to support that.

Having said that, I want to clarify something. The CRTC, with regard to your submissions today, talked about download speeds of at least 50 megabits per second, Mbps, and upload speeds of 10 Mbps. The original investment is 25 and five. Can you clarify that? You presented here today the overall of 50 and 10, but my understanding is that you've allowed 25 and five. Is this not correct?

Mr. Christopher Seidl: The universal service objective is 50/10 Mbps as a minimum. We want all Canadians to have that. In 2016, we indicated that some very remote regions may require incremental steps to get there. To allow for that, we'll be accepting applications that do not meet the 50/10 initially, but would be able to get there eventually.

Mr. Brian Masse: That's going to create quite a problem, though, because obviously that service requirement of 25/5 is a lot less and has technical problems. Is that to rural and remote communities? Are they communities that are identified, for example, as more indigenous areas? Are they more remote? What are the sacrificed areas? Quite frankly, if you're not willing to live up to your own objectives, why would the private sector actually have any incentive to do that?

● (0950)

Mr. Christopher Seidl: The design of the fund is such that it's a competitive process, so projects will be evaluated and we will be selecting only the high-quality projects. It's not tied to any specific regions. Of the projects that come in, the projects that get selected will have the high quality, the meeting of the universal service objective at 50/10 and the quality of service aspects, and—very important—unlimited data option, as well. I would expect that we may not select anything below 50/10, but we'll have to see what projects we get.

Mr. Brian Masse: If you do, at 25/5 it'll have unlimited buffering. That's what's going to be happening with the users. Quite frankly, if $750 million was announced with regard to the 2016 decision to reorient the money that's being collected, I find it hard to believe that we'd build a second-class-citizen system in place right now. What's the duration of time that an applicant will get if they can actually have their speeds right now? What's going to be the timeline to meet what the rest of Canadians are going to be delivered in terms of the 50/10?

Mr. Christopher Seidl: Our goal is to get everyone to 50/10, and the government has also indicated that, by 2030, it wants everybody at that particular target, and that's what we're working toward as well.

Mr. Brian Masse: How long will they have from the 25/5 to the 50/10?

Mr. Christopher Seidl: There are people without broadband right now, and we're working to get them all there by 2030. That's the certain timeline right now.

Mr. Brian Masse: This is completely outrageous. You don't even have a deadline for that. We're building a second-class-citizen system here.

I want to move to the spectrum auction coming on. Both the Conservative and Liberal governments have $20 billion of play money with regard to actually getting...and no actual cost. They have direct revenue from spectrum auction out there, and now we're going to actually build a second-class-citizen system.

I would like to move to Mr. Ghiz, with regard to the facilities-based auction. Can you outline that a little bit more? Part of this is that we've had a cash grab for the spectrum auction as a primary element, and you're suggesting a different type of auction.

I'd like you to detail that with regard to infrastructure being included as part of the bidding process.

Mr. Robert Ghiz: In terms of the spectrum, what I was talking about with regard to the directive was around ensuring that infrastructure is involved in there. When it comes to spectrum, you're right. We believe that the fees that are being charged to our members are some of the highest in the world. That's happening in Canada. That's money that's directly going to be charged back to customers.

Mr. Brian Masse: In other words, it affects your price.

Mr. Robert Ghiz: Yes, it does. I think that, if we could look at a way to reduce spectrum fees, reduce spectrum auction costs, that would be something that would be beneficial in the long run, or as you've pointed out—and I've read some of your comments in the past—use that money to directly help connect Canadians.

Mr. Brian Masse: I think that is the missing part of the equation that Canadians fail to understand—the $20 billion that we've received, really, for basically selling the skies and creating toll roads in the skies for consumers versus that of actually getting the infrastructure out there. The $750 million—let's be clear on this—is going to be collected from the companies as well, so that additionally will be rolled into prices for Canadians. Basically, $21 billion is out there as a public policy to collect for government revenue and for services versus actually achieving those objectives. I find, quite frankly, the CRTC's decision to do this quite offensive, given the fact that we have these opportunities.

I do want to return to the 10%. What 10% of the country is going to be left out? You said 90% by 2021. What 10% has been identified? What are those regions? We should know specifically those regions. I want to know where that 10% is located.

Mr. Christopher Seidl: Right now we have the information on our website; the maps indicate which regions are below the universal service objective. Part of that solution will be based on where the private sector goes; where other public funding extends the network and where—

Mr. Brian Masse: I don't want the website. Tell Canadians, right now, what 10% of the country. Some of them can't even go on the website since they don't have service, so tell the country right now. What's that 10% that is going to be, basically, forsaken?

Mr. Christopher Seidl: Well, in a general sense, it's really in the more remote regions of Canada, in the rural regions of Canada, and we need to address that.

Mr. Brian Masse: How can you address that, then? Is the mandate you have not strong enough? What was the decision for basically carving off the 10%? It seems ridiculous to not finish the last 10% if we're actually saying that we're going to have it for everybody. What are you missing as a mandate, then, to get the whole country under this type of an umbrella?

● (0955)

Mr. Christopher Seidl: We're a part of the solution. We are stepping up to the table to get the $750 million out. We're looking to get everybody at that level. It does take time to build these networks —

Mr. Brian Masse: Has there been an economic analysis done to say basically what you need for that 10%? I think it's a fair question. I mean, if we want to have this goal, and we say we're going to have it as a country, what do you need to get it done?

Mr. Christopher Seidl: The estimates are $8 billion to $9 billion total of investment. The Internet will continue to grow and evolve. I expect that there will be more requirements. As we get to other technologies, there will be more investment requirements. This is something that we will continue to review and address as best we can.

We take affordability very seriously as well. We're reducing local subsidy...because we did support phone service with a contribution regime similar to what we're doing with broadband. As we reduce the local subsidy, we're increasing the broadband subsidy so that it's almost a revenue-neutral aspect to the carriers. Broadband is a big issue. We started off with universal service on voice service. We were spending a billion dollars at the start to extend the voice network out to everybody in Canada.

So we're starting to do that work now. The network will not be built in a short period of time. It is extensive and difficult. You get to the hockey stick in the more remote regions. That's why we want to start there, to get at those areas first, and then get everywhere else. All levels of government—

Mr. Brian Masse: Well, investing in obsolescence isn't necessarily a strategy.

The Chair: Thank you.

We'll move to Mr. Longfield, please, for seven minutes.

Mr. Lloyd Longfield (Guelph, Lib.): Thank you, Mr. Chair.

Thanks for a very good discussion. I'm glad we're able to get some additional testimony for the report we'd started.

Mr. Goldberg, I wanted to talk about the Telesat network, the constellation. Our committee went to Washington a few years back and learned about the north-south network they were launching— about 4,200 satellites, if I remember correctly. I'm wondering how that interacts with the Canadian constellation. You talked about a "fully meshed" system. Do we mesh with other countries as well?

Mr. Daniel Goldberg: I can only imagine that the other constellation you're referring to is a constellation that SpaceX has in mind. These constellations are inherently global. There's not necessarily a Canadian one. There's not necessarily a U.S. one. They are backed by companies. Ours is a Canadian constellation in the sense that we're a Canadian company.

We'll need to coordinate our operations with theirs. We can operate on different portions of the radio frequencies of the spectrum; that's where most of the interference is. It's less an issue of the satellites physically bumping into each other—although that is an issue that we all have to be mindful of—and more an issue of us not creating interference to each other's signals.

Mr. Lloyd Longfield: Right.

Mr. Daniel Goldberg: A body in Geneva that's part of the UN, that's called the International Telecommunication Union, allocates spectrum. I'm happy to say that Telesat Canada has priority rights to make use of the spectrum on a global basis, which we intend to use and our friends at SpaceX intend to use. They're secondary to us. They will need to work around our operations.

Mr. Lloyd Longfield: The coordination of our spectrum with their spectrum and our technology with their technology is something that we're currently engaged with.

Mr. Daniel Goldberg: We are engaged. There will be engagement at the operator level, which is to say we are engaging with folks at SpaceX to make sure we don't interfere with one another, while recognizing that we are in the priority position. At the end of the day, it takes place at a government-to-government level. We'll need our regulator, our administration in Canada, ISED, standing up with their American counterparts to make sure this all works.

Mr. Lloyd Longfield: Great. A lot of the solution will be the technology that's being employed, and—

Mr. Daniel Goldberg: We are big believers that there's a lot of opportunity to innovate. Significant capital investments are required, but we can solve this issue. We're working on it.

Mr. Lloyd Longfield: Great.

In terms of innovation, we had testimony on ground-based mesh technology. In my previous lifetime, we looked at nodes of intelligence on machines and at having redundancy on the machines instead of having some central control system where, if it fails, the entire plant goes down. If we look at ground-based mesh technology, is that something you're also engaged with—for example, phone-to-phone communications rather than phone-to-satellite communications?

● (1000)

Mr. Daniel Goldberg: Yes. When we're ultimately serving mobile users, it won't be directly from the satellite to those mobile handsets. We'll provide a great big broadband pipe to a wireless tower anywhere in the world and that wireless tower will then communicate with the handsets and people's households, our own constellation. We don't think of our constellation as just a space-based constellation. It's fully integrated with a very advanced ground network. It is fully meshed, fully redundant. It also relies on artificial intelligence and machine learning in terms of how it's managing the traffic and handing off the traffic. It's a very resilient network.

Mr. Lloyd Longfield: How would Canadian innovators test new technology with you? What's the interaction?

Mr. Daniel Goldberg: They just come to us. We're doing it now. We've already launched one of these. We're running tests with companies all over the world. We performed a test with Vodafone in the U.K., demonstrating how LEO constellations can support 5G connectivity.

We are working with Canadian companies as well, testing user terminals, testing compression technologies, testing all sorts of things. We're all very motivated to work with each other and to push the envelope of innovation. The good news is that a lot of that collaboration and co-operation are already taking place.

Mr. Lloyd Longfield: Are you part of another network? I'm thinking in terms of machine technology. There was a network created that was called the Open Device Net Vendor Association. Anybody developing technology would have to be compatible with the DeviceNet technology so that Europe and North America could be on similar standards. Asia was always a little bit different.

Is Telesat part of a network or do people just directly connect with Telesat?

Mr. Daniel Goldberg: Our LEO constellation will be fully and, I would say, seamlessly integrated with other terrestrial networks, wireless networks and fixed-line networks all around the world. Our constellation will operate within the Metro Ethernet Forum standards. These are the standards that all tier 1 telcos use to run their traffic. Our constellation will be compatible with the same standards.

Mr. Lloyd Longfield: Thank you.

Mr. Ghiz or Mr. Seidl, you mentioned the regulatory confusion. Is there a regulatory gap that we need to be looking at filling with the Telesat network and ground-based networks? Do we handle all of this effectively through regulations now or is this part of the confusion that you mentioned?

Mr. Eric Smith (Vice-President, Regulatory Affairs, Canadian Wireless Telecommunications Association): I can answer that.

That wasn't really part of the policy confusion we were referring to.

Mr. Lloyd Longfield: Okay.

Mr. Eric Smith: In terms of our industry, our members, being able to utilize technology such as Telesat, absolutely there's the possibility. Technology is evolving. The laws of physics don't evolve, but technology does. Our members try to utilize the best technology for the best-use case. Canada's a huge country, so some people use wireless and some people use satellite. There are definitely opportunities.

Mr. Lloyd Longfield: Is the CRTC fine with what's going on or are there any changes there that we need to look at?

Mr. Christopher Seidl: No, we're very technology-neutral. We have certain levels we want to get to. We look for innovative solutions to get there.

Mr. Lloyd Longfield: That's great, so it's just a matter of getting people connected?

Mr. Christopher Seidl: Yes.

Mr. Lloyd Longfield: That's what we're talking about.

Thank you very much.

The Chair: Thank you very much.

We're going to move to Mr. Albas.

You have five minutes.

Mr. Dan Albas: I'll be sharing my time with Mr. Lloyd.

This is for the CRTC and the CWTA.

A lot of people ask about the huge increases to mobile prices, and we hear that the services people are asking for have increased over time, and that the data used even five years ago is very cheap nowadays but that modern data demands have increased.

When I talk to my constituents, I have to agree with them. I think it's a bit of a cop-out answer. Technology always changes, and consumer demands increase. Other countries have data plans, sometimes unlimited, for far cheaper than we have here. Why is that?

Mr. Robert Ghiz: I'll start off with that. I think what you're seeing now—and what I talked about—is that the model we have in Canada today, in which we're supporting facilities-based competition, is actually starting to lead towards lower prices. Are we as low as everyone would like? Probably not. But I can say this: between Q1 2014 and Q2 2018 we saw a 53.6% decrease for a gigabit of data. Between May 2017 and November 2018 we saw a 67% decrease. The price is starting to come down as competition and the growth of the regional players are taking place.

Our point is that now is not the time to divert from supporting facilities-based competition, because, quite frankly, doing so will hurt in terms of growing out in rural areas and it will most likely hurt our new entrants first and worst.

● (1005)

Mr. Christopher Seidl: The CRTC launched a proceeding in February to look at the mobile wireless market...a very broad look at the affordability, the competitiveness and barriers to deployment. I can't discuss any of the specifics on that, because it's an open proceeding, but in the call for comments we did indicate a full review. We thought it was time maybe to mandate mobile virtual network operators to help with that, but it's a very extensive review that is well under way with a hearing next January.

Mr. Dan Albas: I'll pass my time to Mr. Lloyd.

Mr. Dane Lloyd (Sturgeon River—Parkland, CPC): Thank you.

Thank you for coming.

My first question is for Mr. Seidl.

We've been talking a lot about prices and access today, but what I want to talk about is the threat of natural disasters to our communications infrastructure systems. It's an issue really close to my heart. As was noted, we had tornadoes in Ottawa that took down some power, and the generators just couldn't last long enough before these facilities were prepared. I've also had constituents bring forward to me real, possible threats from coronal mass ejections and solar flares creating electromagnetic pulses that could impact our.... These are theoretical, but they could happen.

What lessons has the CRTC learned from natural disasters, and what steps are being taken to protect our communications infrastructure from the very real threat of natural disasters?

Thank you.

Mr. Christopher Seidl: I'll talk from what we've done in the past.

We had a review a few years ago to look at our 911 system and networks. We did an extensive review making sure that they were resilient and survivable, and we set certain requirements. We found them to be very resilient. These are the networks that deliver the calls to the public safety answering points, and they interconnect to the local networks. We have best practices that we put in place, and we have some requirements there. We had an extensive review of that.

For emergency preparedness, that's the responsibility of ISED and Public Safety. We don't get involved in that particular space, but we are aware of their other aspects. We do, obviously, regulate the emergency alerting for the broadcasters and the cellphone companies now, so that's another aspect that we're involved with, plus managing the 911 system in general.

Mr. Dane Lloyd: My concern is that if our systems are down, people won't be able to receive those emergency alerts if they're not getting any access on their phones.

I guess maybe this is a question for Mr. Ghiz. What are our facilities-based companies doing to harden their systems so that we can ensure that we have continuity of service in the case of a natural disaster?

Mr. Robert Ghiz: I'll have Eric take that.

Mr. Eric Smith: Thanks. It's a great question.

Obviously our members are the prime concern. They want their networks to be up and running. Natural disasters, as you mentioned, do happen, and I think you're probably referring to the time when there was a storm in Ottawa and the electrical generators blew up and cut off power for days.

There is resiliency built in the networks. Everything's theoretically possible. You can increase that resilience more and more times. It gets more expensive, and then we get into the affordability issue, so there's a balance there. I think we're confident in our members; we have some of the best carriers in the world. They're using best practices and are continually reviewing those, and I'm sure they have discussions with government about that as well.

The Chair: Thank you very much.

Now for the final five minutes, we have Mr. Sheehan.

Mr. Terry Sheehan (Sault Ste. Marie, Lib.): Thank you very much to all the presenters. That was very informative.

I represent an area that's called semi-rural. Sault Ste. Marie is a medium-sized community, and the outlying areas are combined with various sizes of communities and townships and local service boards to first nations. My area in Canada, along the Lake Superior shoreline, has different geographical topography to it. It also has a bunch of parks, both provincial and national. It's interesting. You're driving on Highway 17 and you'd think that on Highway 17 you'd get reception—well, not necessarily, for a variety of reasons.

It's like that all across Canada, where you'd think, "Oh, when we're talking about rural areas, we're talking about remote"—but not necessarily. We're talking about along our highway corridors, whether they're primary or secondary highways, where we don't have reception. In fact, I used to always pack a survival bag—just a big black bag that had everything I needed to live in case I got stuck. We still use those up in our neck of the woods.

When I was on the school board in the late 1990s, we did a lot of work putting towers up and partnering with different folks. My question is, overall, what kinds of steps are you taking, particularly with the MUSH sectors that are out there in those communities, to provide services to the areas they already serve? They're smaller. They don't quite have the big budgets. But there are a lot of people who have really innovative ideas. For instance, the CRTC just did a call for proposals. Who's applying for those kinds of things, and how are you reaching out? I might make my question more specific. How are you reaching out to rural Canada, specifically, to get uptake?

●(1010)

Mr. Christopher Seidl: For our broadband fund, part of our goal is to ensure there's community involvement. One of our criteria we'll be assessing in the projects is the level of support the projects that are put forward have from the communities. For the people who are going to be submitting applications—the service providers—their projects will be considered of a higher quality the more engaged they are with the local communities in understanding their needs. We expect that projects will come in, we'll have those conversations and we'll be looking to serve the priority for the areas.

Mr. Terry Sheehan: I'm still trying to understand it. How are you marketing and making efforts, first of all, to get the information out to rural Canada, and are there special considerations for those particular applications in trying to get money out to the communities?

Mr. Christopher Seidl: As I mentioned, we have the criteria for that, and we expect local, provincial and territorial governments to play a role in helping to bring those priorities to us. We're looking for projects from all regions. As I mentioned, one of the criteria is the community involvement.

Mr. Terry Sheehan: Robert, you mentioned in your remarks that you submitted some suggestions, if you will, policy suggestions, to lay this ground. You didn't mention what feedback or what kind of response you got. Could you please comment on that?

Mr. Robert Ghiz: Is this around the directive?

Mr. Terry Sheehan: Yes, the one you mentioned.

Mr. Robert Ghiz: It's interesting. My understanding is that before Parliament rises the directive will be tabled in Parliament. I think the message I'm getting is that people at ISED and different officials are understanding that investment in infrastructure is extremely important. We've been going in to explain out our story.

I don't want to get too much into politics, but I will say that sometimes when you get closer to an election time, good public policy goes out the door for good politics. I will say that from everything I've seen, good public policy is about encouraging investments of our facilities-based carriers to help cover off the gaps —why we're here today. Any change in that direction, in our opinion, is going to slow down that investment we're seeing, the collaboration we're seeing and also the reduction in prices we're seeing, because the new entrants are creating that.

It's being heard. We'll wait to see what I guess ISED and the minister have to say, but I like to be optimistic, and I'm hoping that our message is being delivered.

Mr. Terry Sheehan: Thank you very much.

The Chair: Thank you very much. That brings us to our time today.

Thank you to our witnesses for being here today for such an important matter.

Before we go, I just have a reminder to committee that we will likely be getting the draft report on Tuesday of next week, so we won't be meeting Tuesday, but we will be meeting on Thursday at our regular time.

Thank you, everybody, for being here today.

We are adjourned.