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Chair

Mr. Dan Ruimy

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● (1100)

[English]

The Chair (Mr. Dan Ruimy (Pitt Meadows—Maple Ridge, Lib.)): I call the meeting to order.

Welcome, everybody, to meeting number 85 of the Standing Committee on Industry, Science and Technology. Pursuant to Standing Order 108(2), we have a briefing on broadband connectivity in rural Canada. This is for the first hour, and then in the second hour, we'll go in camera to discuss where we go from there

I want to welcome back Mr. Dreeshen. This originally was Mr. Dreeshen's motion, and while he's not part of the committee, I hope nobody has any objections to his sitting in on both parts of this.

Mr. Terry Sheehan (Sault Ste. Marie, Lib.): Not at all.

Mr. Lloyd Longfield (Guelph, Lib.): There shouldn't be an issue.

The Chair: Excellent. We're all nice and collaborative over here.

We have with us today, from the Department of Industry, André Arbour, acting director, telecommunications, Internet policy branch; Luc Delorme, acting director, connecting Canadians branch, program and engineering; Susan Hart, director general, connecting Canadians branch; and Adam Scott, acting director general, spectrum licensing policy branch.

Then from the CRTC, we have Christopher Seidl, executive director, telecommunications.

We're going to start off with Ms. Hart. You have 10 minutes.

Ms. Susan Hart (Director General, Connecting Canadians Branch, Department of Industry): Thank you very much, Mr. Chair

Good morning as well to all members of the committee. My name is Susan Hart, and I am the director general of the connecting Canadians branch, Innovation, Science and Economic Development, which administers two rural and remote broadband programs, the Connecting Canadians program and the Connect to Innovate program that was launched as part of federal budget 2016.

I am pleased to appear in front of this committee for the second time to provide an update on the newly launched Connect to Innovate program. I do have with me three other members from the department: my director of engineering, Luc Delorme; André Arbour, who is from the telecom policy branch; and Adam Scott, who is from the spectrum part of the department.

Since my last update before you in the spring, we have continued our effort towards bridging the digital divide across the country with the Connecting Canadians and Connect to Innovate programs. As some of you know all too well, the vast majority of urban Canadians have access to 50 megabits per second, while only 41% of rural households can claim access to such speeds. The gap is even larger for indigenous households. Schools, hospitals, first nation band offices, and courthouses in these communities do not have the broadband capacity needed to support their people.

Seventy-seven indigenous communities rely on satellite links for all their communications needs and face even greater challenges that make many things impossible, such as telemedicine and distant court hearings, to name a few. This explains in part why the demand on Connect to Innovate has been remarkably high.

[Translation]

Just to inform new members of this committee, the Connect to Innovate broadband program stems from a Budget 2016 initiative.

Before its launch, the parameters of the Connect to Innovate program were subject to considerable consultations with over 300 organizations.

[English]

The Connect to Innovate program is focused on investing in backbone networks, the digital highways that carry traffic among communities.

[Translation]

The consultations made it possible to expand these parameters and to include "last mile" projects. The submission period for Connect to Innovate funding applications ended on April 20, 2017.

[English]

We were popular. We received 892 projects totalling \$4.4 billion in funding requests for a budget envelope of only \$500 million. Applications came from all provinces and territories. The majority of the projects funded through Connect to Innovate will go towards backbone infrastructure. The investments will also result in improved residential service, which I know is of interest for some members of this committee. Connect to Innovate projects will enable more rural households to achieve the universal target of 50 megabits per second.

● (1105)

[Translation]

Over the past few months, my team and I started to assess these 892 projects based on the program objectives.

[English]

The successful projects have started to be announced and will continue to be approved through the fall and winter. To date, announcements under Connect to Innovate represent a total project value of \$488 million, with a total investment of \$177 million from the Connect to Innovate program.

For example, this summer the government announced a project covering all of Nunavut with high-throughput satellite backbone connectivity that will have more than 10 times the capacity of the existing service. Canadians in all 25 Nunavut communities will be able to do business online, participate in distance education, and search for jobs online.

[Translation]

The government also made an announcement in October for residents of five first nations communities in northern Ontario, who will be connected through a fibre-optic infrastructure.

These communities will soon be able to enjoy improved access to remote training and to new business avenues, thanks to a joint investment from the Government of Canada through Connect to Innovate and the Province of Ontario.

As stated by the CEO of the Matawa First Nations Management:

The Matawa first nations are thrilled with the funding investments for this legacy project that addresses our long-standing community concerns.

[English]

I have one last example, Mr. Chair.

[Translation]

Last Monday, the federal government and the Government of Quebec announced the funding of projects in the Mauricie region, as well as several projects in Quebec, whose details will soon be announced.

The implementation of these three Mauricie projects will provide high-speed Internet access to over 5,000 households.

[English]

We can find the details of these announcements on our website.

These are some examples of projects that will help close the digital divide. They will equip Canadians in rural and remote regions with the tools they need to compete in an increasingly digital and global economy.

[Translation]

As mentioned, the government will continue to announce projects over the coming weeks.

I would now be happy to answer any questions the committee may have on rural broadband in Canada.

[English]

The Chair: Thank you very much.

That's good timing.

We're going to move to Mr. Seidl. You have up to 10 minutes.

Ms. Susan Hart: Thank you very much.

Mr. Christopher Seidl (Executive Director, Telecommunications, Canadian Radio-television and Telecommunications Commission): Thank you, Mr. Chair, for this opportunity to talk about broadband Internet services and the regulatory action to be taken by the CRTC to increase access in rural and remote areas of Canada.

My name is Chris Seidl. I'm the executive director of telecommunications and currently the acting secretary general of the CRTC.

During my previous appearance in May, I mentioned that the CRTC believes that all Canadians, no matter where they live, should have access to broadband Internet services on both fixed and mobile networks. This conviction is clearly stated in the CRTC's December 2016 announcement that broadband Internet is now considered a basic telecommunications service. In the modern era, telecommunication networks are fundamental components of public infrastructure, much like electricity grids were a century ago or railways were at the time of Confederation.

[Translation]

There is no doubt that broadband will play a pivotal role in Canada's future economic prosperity, global competitiveness, and social and democratic development.

All Canadians wherever they live should be able to participate in, and contribute to, this country's prosperity. Improving access to broadband Internet services will help to achieve this goal.

[English]

The CRTC's newly established universal service objective calls for all Canadians to have access to broadband at download speeds of at least 50 megabits per second, Mbps, and upload speeds of 10 megabits per second. Both of these goals are for fixed Internet access services. The speeds are 10 times faster than the targets set back in 2011, a reflection of the rapid rate of technological change and of the pace set by our international competitors.

At the end of 2016, 84% of Canadians had access to the Internet at the new speed targets. By the end of 2021, we expect that 90% of Canadian homes and businesses will have access to these speeds, and that the remaining 10% will join them within 10 to 15 years.

The latest data from the CRTC's "Communications Monitoring Report", which was recently published, demonstrate that even greater numbers of Canadians are subscribing to higher broadband speeds.

Five years ago, for instance, less than 4% of Canadian Internet service subscribers had download speeds of at least 50 megabits per second. In 2016, some 26% subscribed to services with download speeds of at least 50 megabits per second. The amount of data that Canadians access online also continues to grow. Between 2015 and 2016, downloads and uploads from residential Internet connections grew by more than 23%, to 128 gigabytes per month. These trends seem destined to continue well into the future.

Canadians should be able to have access to an unfettered Internet experience. They should be able to access the applications of their choice for such needs as banking, commerce, entertainment, and education, and not feel limited by concerns over data usage. Therefore, our universal service objective calls for all Canadians to have access to an unlimited data option for fixed broadband.

In fact, more and more Canadians are taking advantage of this option. At the end of 2016, 23% of residential Internet subscribers had a plan that provided unlimited data usage. That is almost double the amount since 2012.

The CRTC also recognizes the importance of mobile broadband. At the end of 2016, 98.5% of Canadians can access long-term evolution, or LTE, the latest mobile technology. Approximately 25 million Canadians subscribe to mobile Internet services. The commission's new universal service objective calls for the latest generally deployed mobile wireless technology to be available to all Canadians, not only in homes and businesses but also along as many Canadian roads as possible.

● (1110)

[Translation]

As members of this committee are undoubtedly aware, however, some areas across the country have limited access to Internet services. In fact, approximately 16% of Canadian households cannot access Internet services that meet the universal service objective. Most of these households are in rural and remote areas of Canada, including the Far North, as well as in many regions not too far from urban centres.

[English]

The longer these underserved regions lag behind their urban counterparts, the more it hinders this country's social and economic development.

Because the CRTC designated broadband Internet service as a basic telecommunications service, we are able to establish a fund to help bridge the gap. The fund will provide \$750 million over five years to support projects that will improve Internet services in areas that do not meet the universal service objective. The fund will support both fixed and mobile projects that upgrade existing infrastructure or build new infrastructure.

The CRTC's ultimate objective is to ensure that the services available in rural areas are comparable to those available in urban centres and that connectivity infrastructure supports the evolving needs of Canadians. Our goal is to support projects that maximize impacts and minimize contributions from the fund.

Applicants will have to secure a minimum level of financial support from either some level of government—federal, provincial,

regional, municipal, or indigenous—or community groups and nonprofit organizations. Applicants will also need to invest in proposed projects and clearly demonstrate how projects will achieve the targets for speeds, capacity, and quality of service.

Much like other programs, the fund will rely on a competitive bidding process and objective criteria. A third party administrator at arm's length from the CRTC will manage the fund in a transparent, fair, and efficient manner. The CRTC will oversee the fund and approve projects.

The new CRTC broadband funding regime will be designed to complement, not replace, existing and future investments from the public and private sectors. This includes the Government of Canada's Connect to Innovate program.

[Translation]

The CRTC works closely with Innovation, Science and Economic Development Canada to collect and share data about broadband deployments. Mapping the availability of broadband and mobile networks is crucial to achieving the objective of bringing broadband to all Canadians.

We fully expect that Connect to Innovate, along with other public support and the CRTC's new funding regime, will lead to significant improvements in broadband access across the country.

• (1115)

[English]

Details about the CRTC's broadband funding regime are still being finalized. Back in April, we initiated a public consultation on the new regime. The consultation focuses on a number of issues ranging from the funding framework, including eligibility and assessment criteria, to governance, operations, and accountability.

So far we've received nearly 90 submissions from a broad range of interested parties, including members of Parliament, large and small Internet service providers, consumer groups, chambers of commerce, and representatives of municipal, provincial, territorial, and first nation governments. The public record upon which we make our decisions continues to develop, with final submissions due in December.

Given that the proceeding is ongoing, I can't provide much more detail at this time. I can, however, assure the committee that the CRTC is working diligently to publish its decision on the funding regime as soon as possible in 2018.

Mr. Chairman, much work remains to be done. Extending broadband and mobile coverage to underserved households and businesses and along major roads will require many billions of dollars of investment in infrastructure. There is no doubt that this objective is an ambitious one, in part because of the vast geography and shorter construction seasons. I'm confident, however, that the objective will be met in the same manner that railways and electrical grids were built: by connecting one community at a time.

Thank you. I would be pleased to answer any questions.

The Chair: Thank you very much.

We're just going to jump right into it with Mr. Longfield. You have seven minutes.

Mr. Lloyd Longfield: Thanks, Mr. Chair. I'll be sharing my time with Mr. Jowhari.

First of all, I just want to say thank you for coming back, and thanks to Mr. Dreeshen for bringing this report potential forward.

A lot has happened since we last talked, which is why we postponed having this conversation. We knew that investments over the summertime were going to be happening.

I have a map in my mind of areas that were invested in over the summer, or that are planned investments, versus where we already have coverage. I know in your report, Ms. Hart, you talked about the investments being made. Do we know, in terms of coverage across Canada, what kind of a map we're now looking at versus where we were at the beginning of the summer?

Ms. Susan Hart: Yes. We had an original map on our website that showed eligibility of communities across the country, with dots showing communities. I think what we were waiting for, once all projects had been selected, was to go back and refine that map to see where remaining gaps lie. In this phase we're in the middle of announcements, and there are still some funds left in the \$500 million for selection. We haven't done that work yet, but it is something that we plan to do to see where gaps remain. As you can appreciate, \$500 million is just a drop in the bucket.

Mr. Lloyd Longfield: I know. In terms of our study, I was wondering whether that would be an appendix, but it sounds as though it may still be premature for that.

Ms. Susan Hart: Yes.

Mr. Lloyd Longfield: Okay, thanks.

I met with the Federation of Canadian Municipalities this week, and they talked about the investments the government made in telephones back when telephones were being developed and how the last mile really represents the challenge that we had with telephone infrastructure.

One of the last miles for me is looking towards farm fields and smart agriculture. The other last mile is going into small communities. Guelph is in between those two areas, because we're too large to be able to qualify for some programs. We could be a node, but we don't fit the funding requirements. We have farms around us that we could service. We have other communities. The last mile is a big piece. How far along are we in terms of development of that last-mile strategy?

Ms. Susan Hart: When we talk about last mile, we're talking about that portion of the network that goes from the backbone to a residence, and I guess in your case to farms. Past programs have looked at five megabits per second, which now, with new technologies and new demands, has become less relevant.

The new universal target is 50 megabits per second, as Chris said. That's 50 megabits down and 10 up. We know that in rural areas of the country, only 39% of households can access that 50 down and 10 up. I said 41% in my speech, because the 41% is just the 50 down, but then if you take into account the 10 up, it drops to 39%.

There's a lot of work to do in the coming months and years to work towards that universal target. It's great that the CRTC has set aside a fund, but I agree with you that farms are an issue. I encourage you to put forward those ideas to the CRTC as they develop their parameters.

● (1120)

Mr. Lloyd Longfield: Thank you. I'm sure that I will be asking some of those questions as part of our study.

I'd like to turn over the rest of my time to Mr. Jowhari.

Mr. Majid Jowhari (Richmond Hill, Lib.): Thank you.

I'll go back to Ms. Hart.

Clearly the focus remains on making sure that we have a solid backbone at this stage. Then comes the question of how long it is going to take to get to the last mile and of where we are going to have the highest challenge when it comes to the last mile.

With the focus on backbone, can you give us an idea, with the project that has been approved up to now and the remaining projects that you are evaluating, where we will be by the time all of these evaluations are done? Are we now covering 80% or 100% of the backbone?

Ms. Susan Hart: Those are big percentages. I wouldn't say that we are covering 80% or 100%. It's hard to project at this point in time.

One thing I can say, when we talk about the backbone and the last mile and funding the backbone, is that getting the backbone is almost like a prerequisite. You can't increase last-mile speeds without getting the backbone. For some projects, what you'll see happening is that we will put in place a backbone, but there could already be a last-mile infrastructure in place, and this will automatically increase the speeds for the last mile. You will see those improvements.

In other cases, we have project proposals for a backbone, but the proponents will do the last mile on their own dime. They are asking us for funds for the backbone, but they will do the last mile.

Do you want to add something, Luc?

Mr. Luc Delorme (Acting Director, Connecting Canadians Branch, Program and Engineering, Department of Industry): The only thing I can add is to give you a sense of the scale of where we are heading. Of about 10,000 communities throughout Canada, about a thousand are considered urban, and those, obviously, are served. Of the other 9,000 or so, we had initially identified just under 4,000 communities that did not have a backbone connection. The majority are fairly small. We are talking 400 inhabitants as the average size of these communities. We initially set a target of trying to connect 300. That's going to be exceeded. We are going to do more than that, but we are not going to be able to close that entire gap.

Mr. Majid Jowhari: That's 100 plus 300. It's 400 out of 1,000 where the focus would be on the backbone.

Mr. Luc Delorme: This is for backbone, yes. For the just under 4,000 that did not have backbone connectivity, we are going to significantly exceed our target.

Ms. Susan Hart: Just in Quebec, benefits to 360 communities were announced, so we know that we are exceeding our target of 300 communities, but as Luc pointed out, the number of eligible communities was around 3,700. That's why it's a drop in the bucket.

The Chair: Thank you very much.

We're going to move to Mr. Dreeshen.

If I could sing you a "Welcome Back, Kotter", I would, but we'll bypass that.

Mr. Earl Dreeshen (Red Deer—Mountain View, CPC): Thank you very much, Mr. Chair. To all of my colleagues, it's great to be back here.

Welcome to our guests. We had spoken previously as well.

Our committee went to the U.S., listened to state and Senate committee hearings, and saw that the U.S. also believes that rural and remote broadband services are critically important. They are looking at different types of solutions.

Of course, as Mr. Longfield just mentioned, FCM are here this week, and one of the key things they are talking about is making sure we have strong broadband connectivity throughout the country. One of the other groups that is also associated with that is the AAMDC, which is focused more on the needs of rural municipalities.

We've had a year to deal with Connect to Innovate. I always go back to what we had started: Connecting Canadians. We've had a year to take a look at Connect to Innovate. At the time, there was a discussion about making sure we talk to different organizations. Ms. Hart, you mentioned 300 organizations you have spoken with, and you have the input from them.

I think the major focus on what's going to happen in the future is what's critical, because we've always wanted to talk about being flexible. We've seen the range going from five to 50. Then in the discussion Mr. Seidl had, you talked about being able to get, I think, 90%—or a certain percentage—of this and that we could probably get the rest of them up to speed within 10 to 15 years. Well, with this technology, unfortunately, unless you can find a way to leapfrog so that it can be dealt with, 10 to 15 years is not going to solve the problem we're dealing with here.

Looking at some of the discussions you've had on the technical side, are there things we can look forward to in these extremely rural and remote areas that we can use to solve some of these problems?

● (1125)

Ms. Susan Hart: That's a very pertinent question. I'm just looking at who is best to answer. Adam, you would like to answer.

Mr. Adam Scott (Acting Director General, Spectrum Licensing Policy Branch, Department of Industry): There are a couple of technologies I can speak to on the wireless side that are extremely pertinent for some of our most remote communities, because a number are still reliant on satellite technology. We definitely have our eye on what's often called low earth orbit satellites in geostationary. We've now licensed two companies in Canada.

On the satellite side, licences typically come very early in the project cycle, so I don't want to give the sense that these are imminent, but we do have two, and these are satellites that don't have some of the latency problems of previous generations of satellites. They're lower to the ground, there are a lot more of them, and they are in constant rotation around the planet. They include good coverage of Canada. There is a lot of potential there, and also still a lot of challenges to work out.

Some big players are involved, but they're still working on their financing. They're sorting out the international regulations, which are complex on the satellite side. There is good progress there, and a lot of potential.

Another wireless innovation we're looking at is what's known as "TV white space". For small rural providers in particular, this is an opportunity to gain access to spectrum that is traditionally designated for another purpose. If spectrum is designated for television broadcast but is not being currently used, they can consult a database that will confirm that there is no competing user of the spectrum and give them permission—essentially on the fly—to use that spectrum for a broadband connection. It's a way we can squeeze better productivity out of a limited resource in rural areas. We've just licensed our first database administrator, which means that by the 2018-19 framework we could see that deploying.

Mr. Earl Dreeshen: Mr. Seidl, you were the one who spoke about the 10 to 15 years to get everybody up to speed. I wonder if you could talk about what the CRTC is thinking about in that regard and maybe what initiatives or pressures they might want to put on some of the suppliers.

Mr. Christopher Seidl: When we made those projections, we did it based on the amount of funding that we put forward as well. We're trying to do the right balance of money that comes from the industry, which obviously might be passed on to consumers as well. Our existing local service subsidy, which we're planning to phase out, is about \$100 million, so that's how we came to add about \$100 million for broadband each year over a five-year period, ramping up slowly. We took that balance of that funding level with the private sector contribution.

Don't forget that the private sector is moving this forward as well in some of those areas around the larger cities, and even into some of the smaller communities. We see that deployment happening. We see the major telephone companies rolling out fibre to large and small communities now in different areas. All of that played into how we came to those numbers.

We can't predict the future, obviously. Technology is changing, and we've heard about low earth orbit satellites giving faster speeds and low latency in terms of delay. 5G technology will come on the wireless side as well. Backhaul is going to be very important for that, too, to get those bandwidths. With the technology developments, the continued market forces funding, as well as government support from all levels, we felt that we'd get there. Can it go faster? Potentially, but still there's a very large gap when you talk about the large distances that we have in this country.

● (1130)

Mr. Earl Dreeshen: The other thing I want to ask about is the key reason for our looking at this: the new technologies that are out in the agricultural field. It's not just what's out there in agriculture, but also things that will be out there in forestry and mining. All of these things are expanding. They are looking for new technologies. That way they become more efficient and they have less environmental impact. All of these types of things are important.

That's why I'm curious whether, in the discussions that have taken place, there has been an adequate focus on that type of new technology and on the requirements that we give it. I understand, and it was mentioned, that in the private sector there would be a lot of dollars invested into suburbia and so on because that's where you can make the most money. Is there really a focus on the needs of the rural and remote areas in the future, on the new types of technologies and operations that are required?

The Chair: If anybody wants to do a quick answer, please be very brief.

Mr. Christopher Seidl: One quick answer is that when we included wireless as part of our basic service, we captured it as the latest technology, so that will evolve over time. We expect to continue to support the evolution of new technologies out into covering all areas, including major roads, which would cover a lot of those mining and agricultural sections.

The Chair: Thank you.

We're going to move over to Mr. Johns.

You have seven minutes.

Mr. Gord Johns (Courtenay—Alberni, NDP): Thank you, Mr. Chair

It's great to be here joining you on the committee today.

The Chair: Welcome.

Mr. Gord Johns: My questions are primarily going to be focused on coastal British Columbia and rural and indigenous communities.

We know the lack of access creates a digital divide, and there are significant challenges in coastal British Columbia. I'd like to hear you speak a little bit more about how you're prioritizing and making sure that indigenous communities are getting access, especially coastal communities.

Ms. Susan Hart: We have a very close working relationship with all of the provinces and territories in the rollout of the program, especially with British Columbia. British Columbia also has some funding for a broadband program. We have a very good working relationship with them.

Understanding the priorities of the province and the coastal area along the B.C. coast is definitely a priority, as is looking at what the gaps are. A lot of effort has taken place to look at the gaps and talk about priorities. We've even had their staff come and work in our offices to exchange learning and information. That's how closely we work with them.

With regard to the applications in B.C., we talk about them with the government to have a coordinated approach. They're still being looked at, so we haven't seen announcements yet in British Columbia,. That's to come, because every province will benefit from Connect to Innovate, and I want to assure you that we are in close working collaboration with the government and that the coastal part of the province is a priority. We've looked at the gaps in those areas. It's to maximize success that we work closely with the provinces.

Mr. Gord Johns: In terms of priorities, a lot of those remote indigenous communities in coastal British Columbia have had limited access to resources. They're facing huge challenges. The digital divide is real, and it needs to be a priority. It's an opportunity to be a cornerstone of reconciliation in terms of economic development.

I'm going to read a quote from Denise Williams. She's the first nations technology council executive director, and she said:

First Nations communities continue to receive the poorest access to Internet and mobile connectivity. Federal and provincial governments are moving on major infrastructure and innovation projects across the country that have the potential to either create equality in Canada, or drastically exacerbate the digital divide, potentially disenfranchising generations of Indigenous people.

Maybe you could highlight how you are deciding where you're putting your capital. Is reconciliation a part of that process in terms of prioritizing?

● (1135)

Ms. Susan Hart: With regard to how the program will help indigenous communities, we are aware that indigenous communities are some of the communities that have the greatest needs, not just in British Columbia but everywhere in Canada. We are aware of that, and definitely, as we look to the applications that come in, that's being taken into consideration. There's a close look taking place into those applications. We know that it's not just in B.C. We just announced Mattawa in northern Ontario, for example. Those five indigenous communities will benefit from fibre. We did that in a joint announcement with the Government of Ontario.

Yes, we're very aware that indigenous communities have the greatest needs. A lot of them—I think there are about 77—are dependent on satellite for all their communication needs, so it is definitely a focus of the program.

Mr. Gord Johns: I'm going to specifically go back to B.C. If you could speak on a coastal-wide strategy and how you're working with British Columbia, I'd really appreciate it. I'm really excited about this. We're growing a marine economy and we're growing a tourism economy as well, so we have more and more people visiting our region, but, again, the digital piece is such a key component to people coming to our region. Can you speak about coastal British Columbia and how you're looking at that?

Ms. Susan Hart: I can't speak about a coastal strategy for British Columbia. That's really the role of the Government of British Columbia. I can only say that for the Connect to Innovate program, every province will benefit. We're working closely with the Government of British Columbia. We're aware that the coast is a priority area and that indigenous communities are important for the Government of British Columbia.

Mr. Gord Johns: They're deemed a priority area. You've said that.

Ms. Susan Hart: Yes.

The Chair: We are going to move to Ms. Ng. You have seven minutes.

Ms. Mary Ng (Markham—Thornhill, Lib.): Thank you very much for coming. This is my first time meeting everyone. I'm new on the committee.

I have a couple of questions. I, like my colleagues, met with the Federation of Canadian Municipalities, and I represent an area that is just outside of Toronto, York Region. There's a mix there of both urban and rural, not unlike what Lloyd was talking about around farms and so forth.

Can you talk to us about whether Connect to Innovate contemplates that, and what approach you might be taking for that coverage? Maybe both ISED and CRTC could speak in terms of an opportunity going forward.

Ms. Susan Hart: Connect to Innovate is focused on rural communities, which we define as communities with a population of up to 30,000 people. StatsCan defines "rural" as communities with a population up to 1,000. We did that a little bit broader because we found there were a couple of communities—not many—that were just over that 1,000 mark that did not have backbone infrastructure, so we made the definition of "rural" a little broader to include communities that go up to 30,000. Those communities that are eligible—the majority, the 3,700—are under 1,000. There are fewer than 20 that are just over 1,000 in population. That's how we've defined it for Connect to Innovate.

• (1140)

Mr. Christopher Seidl: I obviously can't talk about the details of the ongoing consultation, but we did develop a fund to allow eligibility for all areas that are underserved. Right now part of the consultation is to identify the priorities.

Ms. Mary Ng: Speaking about the backbone, once the backbone is in for, let's say, the north, and if Connect to Innovate provides one access provider, is there anything in the plan to ensure that other providers also have access? If it were Bell that had access to the backbone in the north, how are we ensuring there is access by the other providers as well?

Ms. Susan Hart: As part of the Connect to Innovate program, open access was a key criterion. In applying, all applicants had to demonstrate a willingness for open access of technology that is subsidized by the federal government. In addition, as part of the application they had to tell us what they would actually charge.

Once projects are selected, our next step is to negotiate contribution agreements with the recipients, and open access will be a part of that to ensure that it's done in a fair way.

Ms. Mary Ng: Do I still have a bit of time?

The Chair: You have two and a half minutes.

Ms. Mary Ng: Perfect.

For CRTC, I always like to ask these questions. What kinds of ideas or innovations are stakeholders coming forward with, if anything, throughout the course of your consultations at the moment?

Mr. Christopher Seidl: We try to get as large a record as we can on any of our files. We did get quite a lot of interventions on our basic telecom proceeding from last year. We had over 50,000 Canadians participate, including all of the major service providers, and governments as well, and technology groups. They tell us what's coming down the pipe in terms of future innovation. We try to understand that when we develop our regulations.

Going to your earlier question, where there is market power, we would intervene. For example, we do regulate the rates for Northwestel's terrestrial Internet service up north because there isn't enough competition to sufficiently protect the interests of users. We will develop regulations for wholesale or open access, including the rates they can charge other providers. There is such a service in the north for other providers to get transport in the north from Northwestel, so we will step in.

However, innovation is clearly an important part of the Telecommunications Act, and we always look for that and step out of the way. We don't want to be impeding that anywhere in trying to support the growth.

Ms. Mary Ng: We've been hearing comments overall around net neutrality. Can you talk to us a bit about how that might affect the way you're looking at funding or how to get a bit of...? Are you contemplating that at all in thinking through your work?

Mr. Christopher Seidl: In terms of the CRTC broadband fund, no, it's not part of the discussion. We set net neutrality rules starting back in 2009, and most recently this year as well with the zero rating decision on differential pricing. We want to have a level playing field for the application space in Canada. We see service providers continue to invest in their networks, and we obviously encourage that and take that into account in all our decisions.

Ms. Mary Ng: Is there anything the government needs to do from a policy standpoint, understanding that this is a context we may be operating in going forward?

Ms. Susan Hart: I'm sorry. Can you repeat the question?

Ms. Mary Ng: In the context of net neutrality, is there any advice you would give to the government? Well, I guess you're going to formulate that advice. Is there any policy thinking around this that we might be doing or should be thinking about?

Mr. Andre Arbour (Acting Director, Telecommunications, Internet, Policy Branch, Department of Industry): Thank you for your question.

Minister Bains has been clear that the government supports the neutrality principles and that they are very critical for innovation in an open Internet in Canada.

The Telecommunications Act does have quite strong provisions that empower the CRTC to put in place regulations that give life to these principles and that are flexible, such that the CRTC can evolve its framework in light of new technologies. Of course, this is a very fast-moving space.

Also, budget 2017 did announce that the government was going to be undertaking a review of the Telecommunications Act and the Broadcasting Act. There will be further news on that in the future, but certainly net neutrality will be a key theme in that review.

● (1145)

Ms. Mary Ng: Thank you. **The Chair:** Thank you.

We're going to move to Mr. Eglinski for five minutes.

Mr. Jim Eglinski (Yellowhead, CPC): Thank you, and thank you to all the witnesses who are here today.

I'd like to follow through on a couple of things that were said earlier.

I come from the riding of Yellowhead, which is basically Alberta west to the Rocky Mountains, and almost as far south as Calgary. We have a lot of areas that suffer from lack of cellphone coverage, lack of telecommunications fibre, and stuff such as that. There are two major problems I want to talk about.

A lot of small companies have popped up. They put up a repeater or a tower in an area, and then they go off and market their product to the local residents. People buy into it because they're excited that they're going to get 10 megabits per second, or so much power. The guy just keeps adding and adding clients to the system, and then at peak periods such as from 5:30 to 11 o'clock, you can't get anything. It's just dead. The system is just so slow. If you get up at four o'clock in the morning, you can probably get what they promised you, whether it was 10 or 20 megabits.

My question would be probably to Christopher. Are there any regulations in place to control those companies from oversubscribing to what their service is capable of giving?

Mr. Christopher Seidl: What you're describing is the gap we've identified in the underserved areas. I would consider those areas underserved because they're—

Mr. Jim Eglinski: That's right. These are underserved areas.

Mr. Christopher Seidl: They're eligible for the funding from various programs out there.

We should really try to stay away from any specific price regulation on the Internet. We consider that market essentially competitive in that case, because you do have choices. In some of those more rural areas, it might be just one fixed wireless provider that you have access to at this point. However, we really want the ability for others to grow out, so we don't have any regulations put in place on the small providers, especially for those rural areas. We're really looking to allow competition to grow out there or funding to support new infrastructure and upgrading of infrastructure.

Mr. Jim Eglinski: I'll move on with my question, then.

I have a community of 4,500 people. It's 145 kilometres from the next community of Hinton. It has fewer than five megabits per second, probably two and a half. The main provider is Telus, but Telus will not spend any money because it says it isn't a big enough population to invest in a new fibre optic line to that community. Is it still available for that community to apply for funding through your organization, to either go on its own or find some system to bring in there? When you're only getting one and a half to two megabits per second during the daytime, it's almost impossible to get anything done.

Ms. Susan Hart: For the Connect to Innovate program, the application period closed April 20 of this year. It would be too late to apply to our program. Maybe somebody did apply. I don't know.

Mr. Jim Eglinski: I don't know either. I will find out probably by the end of today.

Will it be open again next year?

Ms. Susan Hart: Given that around \$4.4 billion was applied for in a \$500-million fund, I suspect that once all projects have been selected, the full \$500 million will be used up, which is why planning to apply for the CRTC fund is probably the best bet for this community.

It might have applied to the Connect to Innovate program. I don't know. If it hasn't, then the next step would be for the community to plan to apply for the funding under the CRTC. There is a good pot of money there, and it sounds like a perfect candidate if you're not able to even get five megabits per second in the community.

● (1150)

Mr. Jim Eglinski: Not yet. Two and a half megabits is the highest.

Ms. Susan Hart: One of the things about broadband is that when municipalities or other jurisdictions are planning passive infrastructure, whether it be roads, utility poles, or bridges, the best and most cost-effective way to deploy broadband is when you're planning that as part of other infrastructure. If there are other roads being built, you actually include the fibre build with it at the same time—

Mr. Jim Eglinski: The problem is that you've got 145 miles of somebody else's fibre.

Ms. Susan Hart: Right.

Mr. Jim Eglinski: You're dealing with a community at the end of the line.

I was wondering if funding is still available to apply for, and is there...?

Mr. Christopher Seidl: Our funding has obviously not been launched, because we're in the implementation design phase right now. We'll have that decision next year, and then we'll set up the fund. Probably funds will start flowing in 2019.

As part of our decision back in December, we looked at transport issues. We said we'd do a research piece on that. We're looking at that right now to understand if there are some monopoly routes, as you might call them, where there is not sufficient access for other providers to potentially get access to those routes and to understand if any regulatory action needs to be taken. That's ongoing right now.

The Chair: Thank you.

We're going to move over to Mr. Sheehan. You have five minutes.

Mr. Terry Sheehan: Thank you very much for your presentation.

One of the questions has already been asked, but about 20 years ago, my business worked for another business. It was northern Ontario's first commerce-enabled website, but it was also an Internet service provider, a small guy. How is it that we're going to guarantee that the smaller ISPs aren't pushed out in the competition world against some of the bigger players, whose names I'm not going to say?

Ms. Susan Hart: I have to say that under Connecting Canadians and Connect to Innovate, from the applications we received, it's not just the big players that are benefiting. We have many applications from small ISPs, from municipalities, from first nations organizations. When I think of Connecting Canadians, the smallest application was for \$7,000 or \$8,000. Some small companies are benefiting from this.

We try to ensure that not all the funding is going to all the big players. Some really good applications have come forward from smaller ISPs.

Mr. Terry Sheehan: They included one from Goulais River in my riding.

CRTC, are you going to be coordinating the \$750 million with the CTI folks as well?

Mr. Christopher Seidl: We're still in design right now, but we're designing it to be complementary to other government programs. One of the eligibility criteria that we provided in December of last year is you have to have some other government funding program to be eligible for our fund as well.

We're trying to make it complementary. It's still being designed in an open proceeding, and so I can't give you what the outcomes might be on that.

Mr. Terry Sheehan: But the intention is-

Mr. Christopher Seidl: The intention is to complement, and it's a shared responsibility from all levels of government, communities, service providers, and the public sector to support bridging the gap.

Mr. Terry Sheehan: I was taking a look at something Gord mentioned about the opportunities to connect. When we start getting

into these definitions for rural broadband, there's rural and there's also remote. There's underserviced. These sorts of things are important.

Up in northern Ontario, the Matawa First Nations just benefited from an announcement, and that's five first nations in the Ring of Fire. It's \$37 million from us and \$30 million from the province and \$2.1 million from another one. I think that's a perfect example of a partnership that's happening, because no matter where you live in Canada you should have the same opportunities as anybody else.

Could I have some comments on how that is going thus far? It was recently announced, but what are the next steps as an example of that announcement?

● (1155)

Ms. Susan Hart: Once a project has been selected and announced, we start to work on a contribution agreement to sign with the proponent. That's the next step, and we work closely with the proponent in doing so. Matawa is likely planning an engineering design for the fibre deployment. They would have to do an engineering design and they would likely have to....

Mr. Terry Sheehan: Then it's going up relatively quickly, I guess.

Ms. Susan Hart: It's going. Is it quick? I don't want to say it's quick, but they are certainly very happy. I would think that the funding has been announced and the project has been selected and work is under way.

Mr. Terry Sheehan: It's important. I'm also chair of the northern Ontario caucus, and we get those questions from the time of the announcement to when it will be up and running. Quite frankly, it's not just about commerce; it's about isolation, about hopelessness in some first nations communities in northern Ontario and the rest of Canada where suicide rates are very high. People talk about this disconnect, so I think it behooves us to get the money out the door, get it into place, and get the projects up as well.

I look forward to the coordination with CRTC on the \$750 million, and to the \$500 million as well going forward. Again, I appreciate this really important discussion. We're talking about a semi-rural riding like mine, where Goulais River has applied. It's a really remote community with a whole bunch of problems, up in northern Ontario, that really needs these programs.

Ms. Susan Hart: Well, these are fly-in communities. When we talk about remote, we're referring to communities that don't have year-round road access.

Mr. Terry Sheehan: I agree. They have ice roads and fly-in.

The Chair: Thank you.

Just be mindful of the time. I want to make sure. We have 12 minutes left of questions. Are you all okay to stay at the 12 minutes?

Ms. Susan Hart: Yes. The Chair: Excellent.

[Translation]

Mr. Bernier, you have five minutes.

Hon. Maxime Bernier (Beauce, CPC): Thank you.

My question is for you, Ms. Hart, and pertains to the deployment of the new services.

You assess the applications of companies who wish to offer those services and to receive funding to do so. Yet there is not just high-speed fibre optic service. I imagine there is also satellite Internet service.

How do you decide to help a supplier provide Internet service by satellite rather than fibre optic, for a specific region?

In the regions, people sometimes prefer fibre optic access over satellite. You provide funding so companies can offer one or the other.

How do you determine the type of service that people in a given region will receive?

Ms. Susan Hart: We evaluate the applications using the criteria in our application guide. There are essential criteria and relative criteria. Technology is an essential criterion. Most of the applications we receive are for fibre optic. We consider the applications we receive. I said earlier that satellite service is offered in Nunavut. The reason is that fibre optic service would be extremely expensive. Those applications that we received were therefore for satellite service.

We consider the cost-benefit ratio, the partners, and the other stakeholders who will be investing in the project. We consider various criteria to determine the most cost-effective way of achieving the program objectives. Moreover, it is not just fibre optic and satellite service. There are also other technologies, such as wireless networks. That said, most applications are for fibre optic service. We do not decide that one location will have satellite service and another one will have fibre optic. We consider what is submitted to us and what is best for the communities.

Perhaps Mr. Delorme would like to add something.

• (1200)

Mr. Luc Delorme: Yes, I would add that we really cannot comment on the Connect to Innovate program since not the project selections have not all been finalized. On the other hand, under the previous program, Connecting Canadians, the funding for satellite service was for the Far North only. In areas further south, it was really wireless land-based or fibre optic service, because satellite technologies do no have a lot of capacity as compared to land-based technology. We would rather keep that for the north, where there really is no other solution.

Hon. Maxime Bernier: I imagine you receive complaints from companies that already offer satellite services in certain regions and see competitors coming along who have public funding to offer fibre optic Internet services.

Do you often get complaints from companies, especially those offering satellite services?

In my region of Beauce, there are both types of service, satellite and fibre optic. Yet I know that the companies offering satellite service were disappointed that their competitors were in a sense being subsidized through the program.

Mr. Luc Delorme: I have to say that satellite service is still important. Given the fixed capacity of a satellite, even the largest satellite companies try to use ground-based technologies and save the satellite capacity for when there is no other option. We will never be able to meet the needs of all underserved households in Canada by way of satellite, because there are not enough of them orbiting. When technology allows us to concentrate capacity where there is a need, that will improve service for everyone.

No, we have not heard that.

Hon. Maxime Bernier: Okay.

Thank you, Mr. Delorme.

The Chair: Thank you very much, Mr. Delorme.

Mr. Baylis, you have five minutes.

[English]

Mr. Frank Baylis (Pierrefonds—Dollard, Lib.): I'd like to focus on two questions: the size of the challenge and the cost of the challenge.

I'll start with you, Mr. Seidl. You gave some statistics. Where were your numbers from?

Mr. Christopher Seidl: They're from our annual "Communications Monitoring Report". We do a survey each year of all the service providers in Canada. We just published that report earlier this month, and it covered both the broadcasting and telecom industry. We captured the availability of the 50/10 for the first time in this past report.

Mr. Frank Baylis: It's your survey report.

Mr. Delorme, does that differ from the work that you do? It's two different sets of statistics.

Mr. Luc Delorme: It's based off the same base data. We have agreements to share our data. The statistical analysis from that report was performed by the CRTC based on their definitions of rural and urban, but in terms of coverage and demographics data, we share the same base layers.

Mr. Frank Baylis: You're working with the same fundamental data.

Mr. Luc Delorme: Absolutely.

Mr. Frank Baylis: You had given us some specific numbers of 10,000 communities, of which 1,000 are urban. Is that correct?

Mr. Luc Delorme: Approximately, yes.

Mr. Frank Baylis: We assume those are being taken care of by the market.

Mr. Luc Delorme: Yes. I also want to mention that "community" does not equal "municipality". The municipality of Ottawa encompasses many communities, some of which, on the far extremes, could be considered part of the municipal border but are still rural communities.

Mr. Frank Baylis: Then 1,000 of them are not in your area of concern. Is that fair to say?

Mr. Luc Delorme: Yes. Ms. Susan Hart: Yes.

Mr. Frank Baylis: However, 9,000 are, and out of the 9,000, you drop down to 3,700 communities that in my understanding have 400 inhabitants or less. Is that correct?

Mr. Luc Delorme: On average, yes, that's right. Some are smaller and some are bigger, but on average, out of the ones that were eligible, that's about the size they tend to be.

Mr. Frank Baylis: Those are the ones that are eligible or those are the ones that are problematic?

Mr. Luc Delorme: That would be the same. The ones that don't have that connection are the ones that were eligible to CTI.

Mr. Frank Baylis: The eligibility is based on not having it and not on the number of people.

● (1205)

Mr. Luc Delorme: There was no eligibility that was based on the number of people. In some cases we had some fibre builds that went by communities of 50, and if you happened to be going by it and you could definitely serve it, that's eligible.

Mr. Frank Baylis: Thanks.

Therefore, it's 3,700 communities, and in this last program you're hoping to cover about 10% of them. Is that right?

Mr. Luc Delorme: We were hoping for that. I think we'll exceed that significantly.

Mr. Frank Baylis: By what percentage?

Ms. Susan Hart: It's hard to tell at this point, because not everything has been selected. We saw in the Quebec announcement that there are 360 communities, so we can—

Mr. Frank Baylis: Out of 3,700 communities pan-Canadian, in Quebec alone we're going to hit 360?

Mr. Luc Delorme: Yes.

[Translation]

Mr. Frank Baylis: In all of Canada, there are 3,700 such communities. According to the announcement, however, this will help 360 Quebec communities. So this is an important factor.

As I understand it, not all the money will be distributed in Quebec. Some will go to others as well.

Mr. Luc Delorme: That is right.

[English]

Mr. Frank Baylis: How many other communities do you anticipate will be tackled in the rest of Canada?

Ms. Susan Hart: It's hard to tell.

Mr. Frank Baylis: You have to wait until it comes through.

Ms. Susan Hart: We have to wait for decisions to be made.

Mr. Frank Baylis: If I do the math with 3,700 communities, assuming we hit it out of the park and we double what Quebec did, we might be down to about 3,000 communities. Can I say this is the size of the challenge for rural and remote Canada?

Ms. Susan Hart: For backbone, yes.

Mr. Frank Baylis: Backbone.

Ms. Hart, you used the words "drop in the bucket". How many drops in a bucket do we need? I'll leave you and Mr. Seidl to let us know about how much you would perceive. Do we even have an idea of the cost of capturing those other 3,000 communities that Mr. Delorme is looking at?

Ms. Susan Hart: We haven't done a detailed costing because it's difficult to do, but we're talking about billions of dollars. I think at one point we had estimated \$5 billion for rural Canada, and then we were thinking the north would cost \$2 billion. I think we want to revisit those numbers once we get over the hump of having all projects selected, because we have a little bit more intelligence now of some of the costs. There have been trends and differences in some of the costs in terms of whether the cost of fibre is going up or down.

Mr. Frank Baylis: When will you have that clarity? When will you have a better sense of what's left to be done?

Ms. Susan Hart: I think we'll definitely have a ballpark figure by January, I would say.

Remember that this is still ballpark. What we're seeing is that the north probably costs more than what we thought, and then it could be that the rural part of what I'll call the south may not be quite as expensive as we thought. However, in all of this we need to get over this hump of work to be able to look at what the remaining gaps are and—

Mr. Frank Baylis: Would that be January of next year?

Ms. Susan Hart: Yes.

The Chair: It's already over. All right. Thank you.

I've only asked for 12 minutes on their part. Sorry.

For the final two minutes, we have Mr. Johns.

Mr. Gord Johns: Thank you, Mr. Chair.

I understand that you're relying heavily on the private Internet service providers to get a lot of the work done. How is Industry Canada assisting in this process, and what is being done by Industry Canada to encourage the ISPs to bring in their services to the rural communities for a reasonable price?

I know that right now in Ahousaht they're just working on a partnership with Telus, so a lot of this is going to be working with the ISPs.

Could you talk about that?

Mr. Luc Delorme: In terms of pricing, first of all, it's not just the large ones. We got lots of applications from regional districts, municipalities, and community groups, so it's not just the large telcos. I think many of our announced projects are not with large telcos.

On the backbone portion, as we go now, we have this open access stipulation that's part of the contribution agreements, and that's definitely going to regulate the access part. As part of the application, one of the comparative criteria that Susan mentioned earlier is that applicants needed to give us the pricing they will charge on that open access. As decisions are made about which projects get supported, that is definitely a factor. We don't want to bring fibre to a community and then find that no one can use it because it's entirely unaffordable. We have that information and we take that into account.

● (1210)

Mr. Gord Johns: Super.

My next question is around timeline. I think you're focused on Ontario and Quebec as a first priority. Where do B.C. coastal

communities fit in? I'm staying there, so as you can imagine, it's a priority for me and for the people in my riding.

Ms. Susan Hart: We'll hear about decisions and announcements over the next couple of weeks. I really can't comment on which province is next. I can just say that over the next few weeks, you will hear about other provinces and you will hear about B.C.

The Chair: On that note-

Mr. Gord Johns: I figured you were going to stop me there.

The Chair: —I would like to thank our witnesses for coming today and sharing all this information with us.

We're going to take a two-minute break so that we can go in camera. Anybody who's not supposed to be here should not be here after that.

We're suspended.

[Proceedings continue in camera]

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