# HANSARD

## NOVA SCOTIA HOUSE OF ASSEMBLY

## COMMITTEE

## ON

## PUBLIC ACCOUNTS

**Wednesday, September 21, 2016**

**Legislative Chamber**

**Department of Business**
**Rural Internet Access**

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# Public Accounts Committee

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Mr. Iain Rankin, Vice-Chairman
Mr. Chuck Porter
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Mr. Tim Houston
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In Attendance:

Ms. Kim Langille
Legislative Committee Clerk

Mr. Gordon Hebb
Chief Legislative Counsel

Ms. Nicole Arsenault
Assistant Clerk, Office of the Speaker

Mr. Terry Spicer
Deputy Auditor General

**WITNESSES**

**<u>Department of Business</u>**

Mr. Murray Coolican, Deputy Minister
Ms. Monique Arsenault, Business Alignment Specialist
Ms. MJ MacDonald,
Managing Director Operational Leadership, Coordination and Alignment

House of Assembly
*Nova Scotia*

**HALIFAX, WEDNESDAY, SEPTEMBER 21, 2016**

**STANDING COMMITTEE ON PUBLIC ACCOUNTS**

**9:00 A.M.**

CHAIRMAN
Mr. Allan MacMaster

VICE-CHAIRMAN
Mr. Iain Rankin

MR. CHAIRMAN: Good morning, everyone. I call this Public Accounts Committee meeting to order. We will begin with introductions.

[The committee members introduced themselves.]

MR. CHAIRMAN: We're very pleased to have the Department of Business here this morning to talk about, if I may say so myself, a very important topic, that being rural Internet access. Mr. Coolican, I'll allow you to introduce yourself and your colleagues.

MR. MURRAY COOLICAN: My name is Murray Coolican, I'm the Deputy Minister of Business, and the Deputy Minister of Energy. I'm here with MJ MacDonald, who's the managing director with the Department of Business; and Monique Arsenault, who's the business alignment specialist. Both Monique and MJ have been instrumental in developing our position and doing our work on this issue.

MR. CHAIRMAN: Thank you. Just a quick reminder for everyone to make sure their phones are on silent. Mr. Coolican, we'll allow you to begin with opening comments.

MR. COOLICAN: Good morning, and thank you for inviting me to join you today. I'd certainly agree with you, Mr. Chairman, that this is an extremely important issue for the province. I will look forward, I hope, to taking your questions. But before I do, I want to give you just a brief update on where we stand in Nova Scotia on bringing high-speed Internet service to more communities across the province.

First of all, we do appreciate how important it is for Nova Scotians to have quality Internet access. It's true for families, it's true for businesses, and it's true for government, so that we can deliver the services that matter most to Nova Scotians: health care, education, and services for our most vulnerable citizens.

This is not a new problem. It's something that government has been trying to address for more than a decade. In that time, tens of thousands of connections have been made, but there's still much work to do. Today, some of the hardest and most expensive connections remain to be done.

Increasingly, the problem is the need to upgrade our network. As with all things technology, equipment becomes out of date quickly. Demand for speed is increasing, with no end in sight.

Over the past year, the Department of Business has been leading this file for the government. While high-speed Internet service is important to more than just business owners, it fits with our mandate of creating the conditions for private sector success. We're investing in infrastructure and innovation so that businesses have the tools to compete globally. At the same time we're also conscious of the fact that this is a federal jurisdiction. The CRTC sets the regulations for pricing and determining what an acceptable speed is, although I think they probably have some disagreements with some of your constituents on what counts as an acceptable speed.

Recent hearings on this matter have shown that this is an issue that's important to Canadians across the country. We should know what the federal government will do with these findings in the Fall or early 2017. Over the past 12 months, our new department has taken a new approach to this issue and we are making some progress. We've completed a needs and barriers assessment, we've completed a jurisdictional scan, we've done an analysis of technology options, and we have identified and engaged with potential partners and service providers.

We are currently in the middle of reviewing and responding to 12 submissions received from service providers as part of a request for information. We are starting to develop a program to fund municipalities and community groups. We have been talking to the municipalities that are taking an interest in this issue on a regular basis over the last several months.

We are also evaluating responses to requests for proposals to build a team that will help us map the assets in the province, to identify the gaps, and to enhance infrastructure.

This last part is crucial because government simply does not have the expertise to do this on its own. We've learned some lessons from the past and one of those is that this is an expensive problem that is not easy to solve.

Just to give you some sense, a comparable fibre upgrade is currently underway in Kentucky and that project is expected to cost $325 million over four years. We need to be strategic about our approach, and we need to be accountable and transparent with taxpayers.

We know that demand for data and bandwidth are growing exponentially. Our approach is to look beyond the needs of today so that we have a network that can handle the demands of tomorrow. Still, I understand that until Nova Scotians have better Internet service, they won't be satisfied; that's why we have to be honest with them. Costs and technical barriers may mean that some people will not get the service they expect. This will be a small number, much in the same way as a small number of places in this province still don't have electricity.

Almost everyone will have access to an acceptable speed. It may not be the fastest speed but it will be better than it is today. For some we hope the progress is just around the corner, but for others the fix will not be as fast. This is the reality here, and it's also the reality across rural Canada - we are not alone in this struggle. We've spent some time with organizations in other parts of the country, learning from them about what some of the challenges are and some of the mistakes made, but also some ideas for making progress.

It's the same if we look south of the border to the United States. It's the same in Europe and Scandinavia. We find the same thing - delivering quality Internet service in rural areas is difficult and largely incomplete. What we have learned when we look outside our borders is that the key to success is partnerships - partnerships with municipalities and community groups, partnership with the federal government and partnership with service providers.

We need to coordinate our efforts and share the cost burden. We know the federal government is preparing to invest hundreds of millions of dollars across the country - not just in Nova Scotia - into high-speed Internet infrastructure. We also know that the private sector is taking the initiative. Over the past year we've seen Seaside Wireless initiate an $18 million upgrade and just last month Eastlink committed $6.5 million to improve its infrastructure.

I certainly hope this gives you a sense of the activity that is going on to address this issue. As I said earlier, this is a priority for my department and we expect that Nova Scotians will see concrete action before too long. Thank you for listening and I'm happy to take any questions.

MR. CHAIRMAN: Thank you, Mr. Coolican. We'll move to Mr. Houston and the PC caucus for 20 minutes.

MR. TIM HOUSTON: Thank you for the opening comments. How many Nova Scotian homes are currently without Internet service, to your knowledge?

MR. COOLICAN: Is your question without any connection or without any possibility of connection, or with speeds that are not adequate?

MR. HOUSTON: Let's do all those, but first let's go with how many homes as we sit here today do not have Internet service?

MR. COOLICAN: We think about 89 per cent have up to five megabits.

MR. HOUSTON: So 89 per cent have up to five.

MR. COOLICAN: Right. This is one of the issues - five megabits doesn't guarantee you're always going to get five megabits. Whether you live in the urban core of HRM, you don't always get the capacity that you're told you're going to get because a lot of traffic on the system will slow down everybody's experience.

MR. HOUSTON: Okay, so in the department's view, how many homes have inadequate Internet service?

MR. COOLICAN: We haven't done a calculation of how many have inadequate service. The federal government and the CRTC is looking at the issue of what makes adequate. We're not sure that five megabits is good enough looking into the future. Part of what we're trying to do is to look into the future to where things are going, not to look strictly at today and say, okay if we fix the problem today - so if we took the federal standard today of up to five megabits and said we're going to fix that, if we did that there would be a lot of your constituents and other Nova Scotians across the province who would be saying, that's not good enough for what I think I need.

MR. HOUSTON: I guess what I'm trying to understand - this is obviously a serious issue. It's an impediment to business, kids need to do their school work through the Internet, medical records are meant to go online - it's incredibly serious. So I'm just trying to get a sense from the department of how big the problem is. I'm not quite getting that sense that you really have an understanding as to how broad it is. So 89 per cent of the people have service up to five megabits. Five megabits is probably not enough so I'm trying to say, what is your sense as to how big it is?

MR. COOLICAN: Let me answer it somewhat differently. We see the problem as bigger than the 11 per cent who don't have service up to five megabits . . .

MR. HOUSTON: Is it 25 per cent of the province?

MR. COOLICAN: We think it's bigger than that because we're trying to head to the future. In many ways you would have to look at what people believe their needs are

and see whether they're getting that to get an understanding. Even that is not a good enough indication because we want to go to where the system is going in 15 or 20 years, what the demands will be in 15 or 20 years.

MR. HOUSTON: Let's say it's a big issue. The issue is deep, the issue is broad. I'm trying to get a sense now, and then we'll talk about how we kind of address it. I heard this morning that there will always be some Nova Scotians that just won't have Internet access. Minister Furey was at a meeting in June and he said that there will never be 100 per cent connectivity across the province and this morning you said there is always going to be a small number of people who don't have it.

So I guess when you identify how big the problem is, is it the position of the department that it's never going to be fully solved? When you say there is a small number who will just never have adequate service, how small? Are you down into the tens of homes then or hundreds of homes - what do you envision? Mr. Furey has made that statement and it has been made here this morning so obviously I would expect that statement is supported by some knowledge the department has that we're never going to get to this group of people - how big is that group of people?

MR. COOLICAN: One of the parts of the solution that we're looking at fairly carefully is satellite. A lot of people who have used satellite in the past would say that's not good enough. But just as the technology for Internet use is improving, the satellite technology has been improving. The satellite companies that we have been talking to - one in particular, a Canadian company based in New Brunswick, is talking about a satellite that would be available next year that would have up to 25 megabits of service, and they see over the next two or three years that increasing potentially up to 100 megabits.

When you're looking at satellite we may be able to get coverage to parts of Nova Scotia that you would say today we wouldn't be able to get to because of distance or lack of density, so it's hard to predict. I think it would be a mistake to say we can guarantee we're going to have 100 per cent connections, but we're aiming for as much as we can. We think that satellite is a solution that is getting better and better and may help those places where they are just too distant from other people to be able to afford the actual wire connection, or there's even some that would be connected on a wireless basis as well. We want to set a high target but we don't want to guarantee that 100 per cent is possible.

MR. HOUSTON: So in terms of the range of possible solutions - I heard you mention a couple there - more cables may help people in some areas, more towers may help them in others, and obviously the emergence of the satellite technology. Cabling is one I hear about a lot, people who believe they could get wired Internet, but there's a lot of charges involved in getting that done. Are you familiar with something that Nova Scotia Power has called a make-ready charge?

MR. COOLICAN: Sorry, the make-ready charge?

MR. HOUSTON: It's a charge that Nova Scotia Power will make if somebody wants to run cables along their power.

MR. COOLICAN: I wasn't aware of what the brand was but I'm certainly aware that Nova Scotia Power charges for the use of its poles, and if someone asked them to undertake work to get an idea of what the costs will be to put wires on their poles, they charge for that. My understanding is that it's a flow-through charge, they don't make any profit on it, but those poles are paid for by ratepayers and Nova Scotia Power is regulated by the Utility and Review Board, which is careful about cross-subsidization from one service to another.

MR. HOUSTON: Is that something that the department has looked at in the range of solutions? If we could run cables along this area, along this existing infrastructure, this would be the cost, or is the department not kind of at that stage?

MR. COOLICAN: We're not at that stage yet. I mentioned the RFP to build a technical team, and what we'll be asking the technical team to do is to scope out exactly what we think the size of the problem is and what we think is a good strategy for responding to it.

Our preliminary thinking at a higher level of strategic thinking is that it would be important for us to see kind of a core network created through the province to make sure that communities and hospitals and schools have the best access we can provide, and then things would branch out from there. That's very preliminary thinking. We're going to wait for the technical team to see. Again, as I mentioned, satellite could provide a backstop to whatever level of service for people who are too distant from wire or potential wireless connections.

MR. HOUSTON: Is it fair to say, then, that the government is just getting around to looking at this issue now? We've been in this mandate for pushing three years, and RFPs are just going out now?

MR. COOLICAN: No, we've done a lot of work in the last few months. We had a study completed by Ernst & Young to get a sense of the problem, to look at other jurisdictions and what they're doing. The RFP is closed, so we expect to have a decision on a team of experts before too long, and we hope to have a plan early in the new year.

MR. HOUSTON: Right. It's like a sense of urgency is coming now, but for a couple of years - I guess it wasn't on your desk until recently. It is odd to me that this . . .

MR. COOLICAN: It was on my desk before I had the desk.

MR. HOUSTON: Yes, it was. You mentioned the E&Y report. I guess that was a $100,000 report, I've been through that report. I didn't see any kind of concrete solutions

or actionable items in that report that people could really sink into and say, yes, let's get going on that. What have you done with the E&Y report?

MR. COOLICAN: We've done a number of things with the E&Y report. It has confirmed some of our thinking; it has encouraged some new thinking in different directions; it has emphasized the need for partnerships; it has emphasized the need to keep municipalities and some community groups engaged in this. The idea of doing the core network - what's referred to in technical terms as the middle mile - is a direction that came through that report. The idea of satellite as a backstop is also something that came through that report. It was helpful. It gives us a base of information.

There are three things that we're doing now. One is that we are building the technical team. That RFP has been issued, we have the responses in, and we're just in the stages of evaluation . . .

MR. HOUSTON: So we'll start to see some action over the next year, I think, which is what you referred to. But I do want to pick up on . . .

MR. COOLICAN: The other thing that we did is the request for information from companies in the industry of things that we can start to do now. The government has allocated $6 million for this work during this fiscal year. We are going to be getting work done before the end of the fiscal year, which will lead to new connections to improved levels of service in some areas of the province.

MR. HOUSTON: So there has been a lot of studies and a lot of consultations, and now the province is ready to spend $6 million; that's budgeted. Do I understand that that $6 million will be spent on the middle mile? Is the plan of the department for the province to fund building a middle mile, the core infrastructure, I think you referred to it as? Then the last mile, which would be from the core infrastructure to the actual homes or businesses or whatever the case may be - that would be funded by who?

MR. COOLICAN: The longer-term strategy of the province is to work with partners to try and build the middle mile, and we look at that as a longer-term strategy. That seems to be the direction that the federal government is headed in, although they have not yet announced their new program, and none of their funding will be available until the next fiscal year.

But the majority of the $6 million will be used this fiscal year and we'll be using it where we can get the most bang for the buck and improving service, not just the middle mile because we think that there are Nova Scotians that are looking for some immediate action to improve their Internet service. We're going to try to do that in the most effective way with the funds that are available.

MR. HOUSTON: What do you expect to achieve with the $6 million?

MR. COOLICAN: What we expect to achieve with the $6 million is a long-term plan that would answer some of the questions that you've been asking, which would give us a clear road map for the next 10 to 15 years of where we should be investing our funds. We expect to see improvement to Nova Scotians in some areas of the province in their actual Internet service this fiscal year.

Until we complete the analysis of the request for information, I can't give you an exact figure of how many connections will be made and where the service improvements will take place.

MR. HOUSTON: So some of the $6 million will go for studies and planning, and some of it will go for actual infrastructure. Do you have any sense as to which areas are targeted? Are you looking at the province and saying, okay, this year we're going to do that area right there?

MR. COOLICAN: We're not at that stage yet because we need to complete the analysis of the responses to the RFI to know where we get the biggest bang for the buck.

MR. HOUSTON: If you're looking for some areas to spend some of that I can make some suggestions for you.

MR. COOLICAN: There's no shortage of people, including MLAs and community leaders, who are drawing our attention to gaps in service that exist, but we think before we begin to try to solve every problem that we need to have a broader plan. I should just caution that given the amounts of money that we think are needed, it's not going to happen overnight.

MR. HOUSTON: You mentioned earlier that the solutions will probably come from partnerships with municipalities. I think you said you're working on a program to fund those types of partnerships. Is it your expectation that that program will be finalized and the $6 million - the portion thereof that relates to infrastructure - will be deployed under this new program that hasn't quite been finished just yet? Is that the idea: you have a program with the municipalities, they would make proposals, you would approve the proposals and then fund them, and that funding will start to go out the door this year?

MR. COOLICAN: What I'm saying is that most of the $6 million will go towards immediate projects that are ideas that have come back to us from the private sector of projects that they could implement very quickly because it has to be done before the end of the fiscal year.

MR. HOUSTON: Could you give us a sense of one of those projects, without naming names - just the type of project that may be ready?

MR. COOLICAN: I'm not sure - I'm concerned that if I started to do that it could be identified who the companies are, so I'd rather not go down that route. I want to

complete the answer to your earlier question. There will be funding for the municipalities. We don't think that the municipalities are in a position yet to be able to make decisions about the current projects that have come forward in the RFI. We really do want to engage them in some of the longer-term planning and we think they're going to need technical resources to help them do that.

I should also underline again that Monique, MJ, and the minister have been meeting pretty regularly with . . .

MR. CHAIRMAN: Order, please. Sorry, the time has expired. We'll move to the NDP caucus and Mr. Wilson.

HON. DAVID WILSON: Thank you for coming here today. I know this issue is quite important, especially the further you get from downtown Halifax, when you go around the province on access to Internet.

I was intrigued a little bit with your opening comments around the example you used on the cost. You used Kentucky - are there any Canadian examples? I mean Kentucky is twice the size of Nova Scotia - I think it's 40,000 square miles, Nova Scotia is about 20,000 square miles. The population is four times as large as Nova Scotia so I don't know if the $300 million represents a cost because of population or geography. Is there an example in one of the provinces or cities around Canada that has recently upgraded? Can we get kind of a better picture of what the cost would be? Or is that $300 million something that is on the radar for Nova Scotia?

MR. COOLICAN: We've had a significant amount of contact with an organization called the Eastern Ontario Regional Network. They have over the last three years spent about $175 million; they are not done yet. That area of Ontario has some similarities to Nova Scotia - it has some urban centres, some urban, rural and some significant rural sections of the province that do not have a high density of population.

MR. DAVID WILSON: The reason I bring that up is knowing the recent investment from the current government, if they are looking at $300 million and they put in $6 million, it's not going to have a big impact on the current services, or an upgrade. That's why I kind of went to that. So $175 million would be more realistic potentially for Nova Scotia? Or do we know if we were going to upgrade our system to get to that kind of point.

MR. COOLICAN: We hope that the long-term plan that we hope to develop by the new year will give us some of those answers. I think the government's view has been that we do need to plan to get a clear idea of what the long term is and have a good understanding of what our objectives are and the most effective steps we can take to spend the money. The $6 million was, are there some things we can do this year because there are a lot of Nova Scotians who are frustrated by the level of service.

The other thing I just want to indicate is that you refer to distance from HRM. There are some pockets of HRM that do have a service which is not up to scratch. I thought that where I lived was one of those areas but I live in the Spryfield area and I was complaining to somebody and they said, how old is your computer? I said eight years and they said, well there's your issue. I was concerned about spending money on a brand new computer and someone said, well there's a $30 fix that you can buy and that fixed my issue. There are examples like that around the province.

So the answers to these problems are different in different parts of the province and in different areas. I think it's important to remember that there are areas of HRM that don't have the same density and therefore don't have good Internet service.

MR. DAVID WILSON: So part of that $6 million, is that going into trying to figure out - I know there are some fixes that potentially that money could go to - is some of that money going to - I'll use the word "consultation" or some kind of valuation on what we need to do and the steps we need to take in the province? If there is, could you tell us what portion of that $6 million is going towards that?

MR. COOLICAN: That's the program for municipalities and community groups. We don't have a set number yet, but I would say that the majority of the $6 million will be first going towards the work that we think can be done before the end of this fiscal year to upgrade service to a number of communities. We'd like to get the best bang for our buck on where we can improve service. We felt that the quickest way to get that information of what can be done quickly was to put it out for the private sector and others to come forward. The second-largest expenditure will be on the project team that will be doing the long-term planning. The third would be the money that will be available for municipalities and community groups to help us with that work.

MR. DAVID WILSON: I know the federal government has indicated that they want to support Canadians in trying to achieve a better percentage of residents who can gain access. Has there been any indication from the federal government that there needs to be matching funding? We know from history with the federal government that often these programs are linked to funding from municipalities and from the province. Has there been any indication from the federal government that funding next year would be tied to equal support from the province?

MR. COOLICAN: They haven't gone to Cabinet yet, so we don't have any firm indication. But given the history of the federal government on these kinds of programs, that's definitely in our thinking.

The other thing was that, in looking at where the federal government was, and given that we've been in close contact with the federal government and have a good relationship with the department that is managing this file, we figured out early on that the funding wouldn't be available until the next fiscal year. Therefore, we decided to move ahead with our program this year to try to get some improvements immediately. Also, we see having

the long-term plan ready for when the federal government announces their program will put us in a strong position to be able to go to the federal government and say, here's our plan; here's where we think we should co-operate together. I think the fact that we are both putting a focus, at this point, on the middle mile should help us take advantage of the federal program.

MR. DAVID WILSON: I know you probably won't give me a dollar figure, but I'll ask this question anyway. I know at this time in the departments, they're working towards the next budget. Have you requested funding to continue next year to improve Internet service? I'm not asking for a dollar figure, but has there been a request to get a . . .

MR. COOLICAN: You're not going to get either.

MR. DAVID WILSON: I thought I'd try.

MR. COOLICAN: We're not at that stage yet, but I think it's fair to say that the government understands that this is not an issue that is going to be resolved with the funding that was made available this year.

MR. DAVID WILSON: Thank you. Obviously, a goal of 100 per cent for homes and businesses to have access to high-speed Internet is something that has been talked about for years. However, in 2014, I know the former Minister of ERDT, Michel Samson, had indicated that we had to be realistic in asking ourselves if 100 per cent is possible in Nova Scotia. Has there been any percentage or direction given from the minister, the Premier, Cabinet, on a target of what is realistic in Nova Scotia?

MR. COOLICAN: I think that will come from the long-term plan, but again, I think the satellite technology could take us a long way more efficiently. We have to explore that opportunity further. We have to see what our long-term plan is to get a sense of that.

MR. DAVID WILSON: So there hasn't been any direction given to you or people working on that - listen, 100 per cent is not realistic, we're going to 95 per cent. You haven't been given any indication yet, until more work has been done to kind of figure out what the roadblocks are in the province.

MR. COOLICAN: I think the government would like Nova Scotia to be kind of a best in class on this issue of rural Internet connection, but we don't as yet have an exact definition of what that looks like and when we're going to get there. I'm hoping that will come from the long-term plan.

MR. DAVID WILSON: You mentioned that about 89 per cent of Nova Scotians have access to up to 5 megabits I believe is what you said. The CRTC has indicated that a set target speed for broadband Internet across Canada would be minimal five megabits so to me that's here and above. You mentioned 89 per cent have at least access to five megabits, not all the time. We're not achieving I think what the CRTC thinks is an

acceptable kind of bottom of how many megabits we have so upgrading definitely needs to happen.

I know we have an issue of people who don't have access, or zero, but those who do have access in that 89 per cent, could you give us a percentage on how many people under five megabits are gaining access to the Internet now? I don't know if I'm being clear on it but you said 89 per cent potentially could have five megabits so can we break that down even more? Is it 50 per cent have five megabits and higher, 40 per cent have less, or 30 per cent have less?

MR. COOLICAN: I think when you look at where the Internet is going, to take the current view of what is acceptable from the CRTC is probably not going to stand us in good stead for very long, as a long-term target. I think we need to be more aggressive, I think we have to plan.

Someone on my staff is going to win a bet when I say this but it's like a quarterback in the football league - if you throw the ball to where the receiver is when he is throwing the ball, he's going to miss it, right? You have to throw the ball to where the receiver is going. I think that's something we have to look at. We have to look at where Internet use is going because there are a lot of people today who would say five megabits is not enough for my business, it's not enough for where health care is going, it's not enough for where education is going, and it's certainly not enough for where some of the home usage of Internet is going.

We have to look at the longer term and I think we have to plan a system that's capable of more growth than in the demands than we've had in the past.

MR. DAVID WILSON: I guess it depends on who the quarterback is. I guess the question is, who is going to be the quarterback for the province so that will be the first test.

MR. COOLICAN: The voters, I think.

MR. DAVID WILSON: That will be the first test, yes, over the coming months.

Often we mention the challenges that residents have and businesses have accessing the Internet but often I don't think people recognize the importance of having access to Internet for our key infrastructure, for example - rural hospitals, schools. Do you have a breakdown in the province of these infrastructure deficits? Are there hospitals that are being challenged because of the Internet? Are there schools where children are challenged with gaining access to Internet services when some of us take it for granted.

My kids have WiFi. My biggest thing is making sure they have their WiFi on when they go to school so they don't eat up the data, but in rural Nova Scotia I would assume that some of these schools don't have that. That puts patients, health care workers, and

students at a disadvantage. Do you have a list or do you know those infrastructures that have trouble gaining access and are you able to provide that?

MR. COOLICAN: That's part of the mapping work that will be done by the planning team, but again, I think it's important - well, first of all we certainly have a lot of indications that there are students who are unable to get access and a lot of teachers are using the Internet for homework and that kind of thing. There are some students who are struggling with being able to access that homework. So at this stage, some of it is the students and not necessarily the schools that we're hearing about.

I think we've begun a discussion with departments and people in the community about where they see it going, not where it is today. So I think people see the potential for significant demand from the health care industry that's not there yet today, or significant demand from educational institutions that's not there today. I think when we're doing our planning, we need to think about that demand looking into the future, not just what's happening today, but we will certainly be mapping exactly those schools and what level of access they have.

MR. DAVID WILSON: I'm glad to hear that, but every day or every month that goes by, every week that goes by, those students are still placed at a disadvantage. Has there been a priority placed on those institutions that could really benefit? I'm not advocating that we shouldn't be concerned about someone in their home wanting to watch Netflix, but to me, student education and health care should have a bit more priority when it comes to targeting what we can do now, as soon as we can, to try to at least elevate their signals and stuff.

MR. COOLICAN: Our information to date is that for today's usage the schools and hospitals are relatively well served. I think the issue is for students in their homes where their home doesn't have appropriate access making the connection. It's hard to identify that segment of the population when you're planning this, but our effort to get as much improvement as possible with the money we have available in this fiscal year I hope will address a fair amount of that.

MR. DAVID WILSON: I know I only have a few minutes, but there was a report prepared by Ernst & Young for the department recommending that the province develop provincial goals for broadband access. Has the province developed those goals or is that future work that's going to take place?

MR. COOLICAN: That's part of the planning process.

MR. CHAIRMAN: We will now move to the Liberal caucus - Mr. Porter.

MR. CHUCK PORTER: Thanks for being here today. A few questions - I want to cover a couple of topics. One is the more technical side of things, I think - not that I'm very technical. I'd be the last person who would be high on the technical list. I can turn it on, I

can turn it off, and I can answer an email, but as we know, our younger people are very wise when it comes to technology.

Something I've always been curious about - and we talk about this five megabits that you've talked about and this upload/download speed - if you talk to people in the technical world, the folks who are selling computers and so on, they'll tell you that not necessarily the technology that is out there can even drive or accept what speeds are there.

You see these sales pitches - and that's what I'm going to call them because that's what I feel that they are. These companies are all trying to sell you something. Obviously that's part of their marketing plan - that's fine, whatever the speed is per second and so on, but at the other end, sitting here or on your computer at home, can it actually accept what they are selling you? Is that accurate? I might not have done a very good job asking the question as to my technical ability, but I've been told that they can sell you all kinds of stories but it's not out there to accept anyway, it's not even possible.

MR. COOLICAN: I'm not a technical expert in this area and you may have higher technical expertise than I do, based on your description. That's not an issue that we've been looking into. I think our view is that the technology and the information that's available is demanding higher and higher quantity of access over Internet and people are looking for more speed as they do their work.

That's our focus, to look at what may be required in terms of speed, information, and quantity over the next 10 to 15 years and see what we can do to make that available to as many Nova Scotians as possible. All the different things that people are selling, that's not really our expertise. We are looking at where the technology is going to see if we can understand what the demands on the system might be in the future.

MR. PORTER: I appreciate that. As part of that, maybe I didn't frame the question very well, let's talk about capacity. So there is a relevance here - I'm the end-user at home or wherever in my office, a business, it doesn't matter where I am, and I'm being told oh, this is 30 megabits per second. Is that even real? Is that something that's - we're talking about five here that some federal . . .

MR. COOLICAN: So 30 and higher speeds are possible but the CRTC has set kind of a base of what's acceptable and there are a lot of people who will say five megabits is not acceptable, and you add to that the issue of it being up to five megabits, so there will be times of the day when there's a lot of traffic on the system where things slow down. It's like driving your car on a highway - some days it will take you 10 minutes to get to where you want to go and the next day it will take you 20 minutes, because of the amount of traffic that's there. It will slow down the speeds.

A lot of people are demanding more than the five megabits and there are places where you can get access to those higher speeds. We'd like to look at what we can do to design a system that improves the speeds that are available across the province.

MS. PORTER: So that said, again I'll go back to this five, we're looking for more. Your comment a minute ago was where we're going and I would say, where is it we are going, 15 or 20 years? I think back 15 or 20 years, I would never have thought we would be here, as an example. But what does that look like? Is it here? Probably. It's almost there now, I guess.

I guess I would say this - I'm glad we're going out to find a tech team that knows a whole lot more than I do and I'm not saying that you don't, but it's time that we find specialists who actually know what they're talking about by way of incoming, outgoing; what the future does look like. I know we're talking about $6 million, I don't know how that will be divided up. I guess most people probably don't - I don't want to say they don't care, they do, it's a substantial amount of money, they want to receive good service. But as long as they're receiving that service, they are probably considerably happy or happier.

Where I come from in Hants West, not strictly rural, I mean we have the towns that have the option for fibre op - which is fairly fast, quite fast actually - but not too far away you don't have that option. So are we at a stage where we can talk about what those options might look like? Some people say just run the cable along the highway and we'd have a lot better service, whether that's Eastlink or Aliant or somebody yet to be named, in other parts of the province or other users or suppliers. What are we looking at here? Can you answer that yet? Maybe you're not in a position until this is done, but I would assume at your level, deputy, that all things are being considered.

MR. COOLICAN: Yes, I think that's right. There are some people who say that fibre is an important component of the future because of its capacity. But there are other technologies that are being used today that can perform close to the speeds of fibre. We're counting on the technical team to help us make some of those determinations about where we should be heading. It's not just the advances in the technology, but it's also the advances in our ability to use the technology. There are probably a number of things that the health care system could do today, but we haven't introduced all of that into the health care system. The Department of Health and Wellness is looking at a lot of these issues very seriously and improving our ability as a health care system to deal with the amounts of information. We think, over the next few years, their demands will increase considerably, and it will help contribute to better health care at lower costs.

MR. PORTER: I can certainly appreciate that, and most of these centres are located in areas, and the fibre runs through the more densely populated areas. But I would argue that a business set up in Greenhill, Hants County, is just as important as a business set up in Windsor. So these pockets where we've had these issues - I'm only making an assumption, and you can clarify it. One of the other members talked about the coverage area of 100 per cent. Whether that's realistic or not, I don't know. I guess as we move through the process, and we build a team of technical specialists, they'll perhaps be better able to tell us that it's realistic or not. I suppose anything is realistic if you have enough money.

I say that by way of maybe you need to run a cable in the School House Road, or whatever it's called, in Ardoise to be able to capture all those folks in there who currently don't have that option. I don't know what that looks like. There's a lot of businesses in Nova Scotia that are out in those - I don't want to call them rural because they're really not that far out of reach; they're just in these pockets where the current system isn't really working that well.

We also have these towers placed, as we all know, and the technology on them. Many would argue that it's well out of date; it was out of date before it went up, some would argue who are more technical than I. Will we continue to see that tower and that kind of operation in place along with whatever new ideas we're adding to help fix these pockets of issues, pockets of problems?

MR. COOLICAN: I think one of the things we have to look at is how we make best use of the system that's in place now and what changes we make to that system. I think to kind of rebuild the system in total and go with a completely different approach would probably be too expensive and not what's required. That would certainly be work that we expect the technical team to do over the next few months.

MR. PORTER: So simplistically, it could be hardware changes on towers that are better, more up to date, more capacity?

MR. COOLICAN: Yes, and satellite is a good example. The current satellite technology, a lot of people would say that that's not fast enough, and the service isn't good enough. They're making improvements in that technology. We might not have recommended satellite as an alternative a number of years ago, but it could very well be an important alternative for those homes and businesses that are quite isolated. Isolation can take many forms. A big part of it is there's nobody else around you.

MR. PORTER: So given the advances that we've seen in the last 15 or 20 years in technology, certainly we have more users. Not everybody is a user; we know that. There's still a certain population or percentage of the population that are not and probably won't be. But as time goes on, and the years pass, there will be more and more, and the percentage of users will probably be very high. Even in the most simplistic ways, in small ways, they'll still be using technology, and it has very much become a part of our day and will even more so. So the population piece is an interesting one. You used the analogy of the traffic. We know what the traffic is - I would assume at this point we're about 10 years or so into this project now, maybe a little bit less than that. We know what the traffic is. The traffic really hasn't really changed and when I say traffic, I'm talking population. Our population is fairly stagnant across the province. Yes, it may vary by a few thousand, but we're not talking about it going from just under one million to two or three million - I don't think anyway. Someone can correct me if I'm wrong, but we wouldn't see that in the immediate future - even in probably a 10 or 15 year span, unless something major happened.

Having said that and knowing full well that there will be more as each new generation comes along, users online, the number will still be the same. We know probably from 6:00 in the evening until 10:00 or 11:00 at night people are on there. They're busy, they're Facebooking, doing whatever. I'm sure that data must exist somewhere or maybe that's part of what you're doing - I don't know. In my mind - and maybe I'm too simple around it all again because I'm not that technical - it would seem quite easy to me what capacity was required. Is it that simple or have I really over-simplified it?

MR. COOLICAN: I think you've over-simplified because it's not just a matter of the number of people, but it's the number of people who have become savvy when it comes to technology and want to use it - and then the extent of their use. That has been not just changed - it's changed by the way in which - or the products and the information that's available to them and how you would receive it.

I don't want to focus on films because that's not all there is, but if you think about how you used to access films 10 years ago and how people expect to access films today, it's quite different. That has created significant demand. We expect that there will be changes to the health care system that will significantly change the amount of traffic that will want to have on the Internet to enable better information and better health care at a lower cost. Those things - it still may be just one doctor who is using it, but the amount of traffic that doctor will put on the Internet will be quite considerable.

If you think about businesses, the way in which they are using the Internet has changed quite significantly over the last number of years. Just the kind of information that you want in a business and also how a lot of businesses especially in rural parts of the province are doing their marketing, they don't have store fronts anymore. They send it out over the Internet. That adds to the traffic and the exponential growth that is forecast to continue.

MR. PORTER: So it's certainly not a people issue. It's a usage issue. So there are the folks streaming TV, which is a very popular thing and certainly where you have the high-speed capacity today, a lot of people I talk to have Internet service only but they're streaming TV and whatever else. That's what we're referring to there, so that may be a little harder to predict.

Given that example, which is a very good one - again, points to my over-simplifying the use of technology - would you see it then as something that might be limited? I don't know what the figure is - five megs or a lot more than that I'm sure. Now as a consumer you can buy these packages; most of us probably have those. So either the price has probably got to go up for usage or you're going to be capped somewhere - would you see that? Is that something we're just looking at and studying as part of all of it?

MR. COOLICAN: The issue of what people charge and caps and all that sort of thing is regulated by the CRTC. I think one of our concerns is what the cost is going to be to the user. I think we have to be realistic that the kind of service that we're looking at is

going to cost more than the cost when the program was first put in place in 2007, for example. As the service increases, some companies have used caps or charging for extra use as a way to help improve the service to other people in the same neighbourhood. Those are decisions that private sector companies are making and, as I mentioned, those are regulated by the CRTC.

Our plan is not going to get into the pricing, although when we talk to the satellite company, for example, we want to make sure that the satellite service is something that is both a good service but also it is relatively affordable compared to the other options.

MR. PORTER: So we would have to wait that out to see what it looks like further down the road by way of the pricing issue, although it would have to be reasonable or it just wouldn't be affordable for everyday consumers and/or businesses. I'm sure that argument will come at some point.

There has been a bit of talk about the actual coverage and we know there is not 100 per cent coverage. I know that was a goal some time back - that it would be nice that certainly everybody could be offered service in some way, shape or form. It has certainly proven - to this point anyway, in fairness - not to be the case. What would the department's goal be - your goal and/or the reach of your team and the report and all that you're doing? Is it 100 per cent actually attainable in your mind - I'll ask specific to you and your department? Would we see consistently better service for the roughly 90 per cent that we have?

MR. COOLICAN: I think it would be a combination of those things. I think to promise that every Nova Scotian will get it is probably not realistic, but I think in terms of our planning, we want to try to get good service to as many Nova Scotians as possible. As I mentioned earlier, I think satellite is one way that we can achieve that at a more reasonable cost, given the improvements in satellite technology.

MR. PORTER: Is it all about the cost? If there was ever enough money - and there never is, but if money wasn't an issue, is it possible to create 100 per service of good, solid capacity at your Internet at home and/or business?

MR. COOLICAN: In my experience in government and the private sector, that's a situation that has never existed.

MR. PORTER: I think my time has just about expired. Thank you.

MR. CHAIRMAN: We'll move back to Mr. Houston for 14 minutes.

MR. HOUSTON: This is a serious issue. It is definitely holding back the province - holding back business - it's impacting everyone. Successive governments have been kind of bumbling along with this for at least a decade, probably more. Today, I don't have a real good sense of confidence that we actually know where we're going. We're still talking

about making plans. We're still managing expectations - hey, it's never going to be there for everyone.

We have to get to a place where we have some real ideas, and often real innovative ideas don't come from inside government. They come from outside and they come from places that you never anticipate. The U.S. military sometimes puts on a competition - $20,000 for people who come up with this type of an idea for this type of thing. Have you considered anything like that? Why don't you run a competition with some prize money for somebody who is sitting somewhere we have not anticipated who is actually figuring out - that's much smarter than us that knows how to do it?

The things about issuing - we have an E&Y report, it was a $100,000 grant. We have these RFPs you're talking about. We're going to do these needs assessments and barrier assessments - it's not getting us anywhere. Would you consider things like that? What types of ideas do you have in the department to say, let's put our heads down and get to business on this now? I don't have the sense that's happening. You don't really even know how many people don't have Internet. We just know that they're not all going to get it.

MR. COOLICAN: I don't agree with your premise. I think the government has made progress from where we started. Part of the challenge has been that the finish line is consistently changing. It's getting tougher because the demand for the service is outpacing what was designed a number of years ago and that's why we've developed a program that has both what the longer-term strategy will be to make sure that we're building a system that will work well into the future, but also getting some things that can be done in the next number of months to improve the service for people in the province. That's what we're doing.

I should say this because we are at Public Accounts Committee but one of the things we're being very careful in doing is making sure that we do the procurement according to the rules that have been set out through changes in government and different recommendations from the Auditor General and from this committee, so we have to do it right. Sometimes that takes a little bit longer but we have made significant progress in the last number of months and I think we're doing it in a responsible way with the public dollars that are available to us.

In some of the other things we're doing, both in the Department of Energy and in the Department of Business - I like the idea of technical competitions. There are a number that are already available through Innovacorp and I think that's an idea we should be considering to see what's out there. I'll check into whether other jurisdictions have done something similar. There could be a magic bullet idea out there; there isn't a magic bullet at this stage.

As I mentioned, I think the biggest positive change in the last little while in terms of technology is the improvement in satellite service which could help and we hope to take advantage of that.

MR. HOUSTON: Thank you for agreeing to do a competition. I think I heard you are going to look at it anyway; that's a start.

All the analysis that has been done over time - there are a number of solutions to this. Some people will be wired, some people will be using satellite. You talked about satellite a number of times this morning. Is satellite a technology that is advancing to the point where everyone could be on satellite, or is satellite a possible solution for a subset of 10 per cent of the province? What are your thoughts on that? It does seem like something that you are pretty focused on.

MR. COOLICAN: We're not seeing satellite as a solution for everybody. We're seeing satellite as a potential solution for people who are in out-of-the-way places, who are living in an area without much population density, where obviously it's the same as why there are certain parts of the province that don't have electrical service or why you don't have sewer systems throughout the province or water systems. A lot of people these days are having shortages in their water wells and that's a different technology that is used mostly in rural parts, as opposed to in the city where there are water systems.

We need to look at what the costs are to get to some of these low population density areas or where the terrain may be quite difficult and we think that in certain areas satellite could be a most cost-effective answer as it provides better and better service that could be important.

MR. HOUSTON: The cost of Internet service in Nova Scotia varies depending on the service provider used and where you live. Do you have an overall sense of the cost of Internet service? The cost in Nova Scotia, how does it compare to costs in other jurisdictions? Is Internet expensive here?

MR. COOLICAN: We don't have a number on that or a cost comparison. We'd have to check with the CRTC to see if they keep that kind of information. But we have not done that.

MR. HOUSTON: As we talked about the overall infrastructure cost, it's kind of neat to have a perspective on what it's costing the customer at the end. I think you mentioned $175 million was kind of the estimate of what it might cost to build Internet in Nova Scotia. Was that the number used, $175 million?

MR. COOLICAN: I used the number that comes out of eastern Ontario, and I used the number that comes from Kentucky.

MR. HOUSTON: Okay, so Kentucky was $325 million, and eastern Ontario was $175 million. We don't have an estimate for Nova Scotia?

MR. COOLICAN: Not as yet. I hope that that will come out of the plan. One of the things when you're comparing jurisdictions is that a lot depends on the density. There are different densities of population in rural areas. If you take Newfoundland and Labrador, the population patterns are quite different from what they are in Nova Scotia, and the connections from one community to another are a lot more challenging in some cases. So the costs are going to be different when you move from one jurisdiction to another. Obviously, the density of population is important, but there can be other geographic factors as well.

MR. HOUSTON: Just on that, is there any real relevance to the Kentucky example? Is it similar to eastern Ontario? Or are they just ones that you were able to find?

MR. COOLICAN: Eastern Ontario is probably the most similar, but Kentucky does have significant rural areas.

MR. HOUSTON: Are they laying wires in both of those cases? I'm just wondering if there's any relevance to those numbers at all.

MR. COOLICAN: They're using combinations of solutions. Eastern Ontario, for example, is both laying cable and using satellite. As a model, that seems to work. But nobody seems to be focused on, okay, we're only going to do one thing. People do feel that it's an important strategy to focus on the middle mile across the jurisdiction, and the federal government has come to the same conclusion.

MR. HOUSTON: Do you have any kind of goals inside the department? We're 10 years into one connectivity initiative. Do you have a goal in the department that within some period of time, people will have access to Internet - whether it's 98 per cent or whatever? What's the timeline to move that 89 per cent up to where we should be and where we should be with a suitable connection? Do you have a timeline in the department for that?

MR. COOLICAN: That will come from the longer-term plan. I think with the way technology is evolving that this will be something that government will have to continue to look at on an ongoing basis. We're talking about looking 10 to 15 years out. It's amazing how quickly we'll be close to that 10 to 15 years, or you will. I was going to say it's somewhat similar to the electricity system in that on the electricity system, we're looking out probably 25 or 50 years in terms of planning because I think it takes longer to do things in the electricity world than it does in the Internet world. But with the speed of change and the increase in the amount of traffic and the use to which people are putting the Internet, if today we're looking out 10 or 15 years, in five years there may be a different view of what's happening 10 or 15 years out and so it's always going to be important to keep that in mind.

MR. HOUSTON: I do agree it's important to be mindful of that. Maybe we'll just finish up in the last minute. I know there are a lot of municipalities and community groups that are actively looking at this and many that would say they need some support from the government. I know you said that a lot of them aren't really ready, but some of them are.

You referred to a program you're looking at to partner with municipalities. Do you have a timeline for having that program available for people to make applications to? When will that be ready so we can start working on that?

MR. COOLICAN: We hope to have a program available in about a month. You are right that different municipalities are at different levels of preparedness or understanding of the issue, but I would say all of them are looking for ways to get technical expertise to help them understand the issue in their community.

There are also a number of communities that are working with other communities, forming a larger group which I think is helpful. I think one of the municipalities are hearing from their constituents, as I know you are hearing from your constituents, so they feel it's important for them. It's important for the growth of their community and it's important for the people who live in their communities to . . .

MR. CHAIRMAN: Order, thank you. We have to move to the NDP caucus and Ms. Zann.

MS. LENORE ZANN: Thank you very much and it's nice to see you here today. I want to go back on a few different things and then bring us back up to speed. I think I heard you say that 89 per cent of Nova Scotians have up to five megabits, is that correct?

MR. COOLICAN: That's right.

MS. ZANN: That's for uploading. For downloading, is it one megabit for those same people? The CRTC said they'd like to see five megabits for downloads and one megabit for uploads, the data that consumers are sending to the Internet. That's what they thought - by the end of 2015, the CRTC expects all Canadians to have access to broadband speeds of at least those figures. Is that what it is right now?

MR. COOLICAN: Yes.

MS. ZANN: For 89 per cent of Nova Scotians?

MR. COOLICAN: Don't forget the "up to" number.

MS. ZANN: Okay, so up to. Do we know if we actually have that in 89 per cent of households or not?

MR. COOLICAN: We have up to. The issue is the amount of traffic on the system. So if all of a sudden, you have a number of people who are downloading the same thing at the same time, they won't get the same level of speed that the system is designed for.

MS. ZANN: So if they're all watching Game of Thrones at the same time, it won't be as good for some people as others.

MR. COOLICAN: That's right.

MS. ZANN: Also you mentioned that you are looking at the problem not as of today but where we're going. I understand that because with the way of technology, I mean as soon as something is invented, it's like there's something else that is invented almost at the same time that's better or faster or whatever, so it's hard to keep up.

I noticed that for instance, just from a quick look on the Internet, when you look at Tesla, for instance - I really admire their work and his work originally, Tesla - and they are offering unlimited high-speed Internet, unlimited phone service without any caps, cutting the cable and they're saying it's better, it's faster than cable, DSL and more reliable than satellite. The custom speeds are up to 450 megabits per second. Have you been in touch with the Tesla company or any of these other ones that are actually quite progressive and seem to be on the cutting edge of these types of technologies?

MR. COOLICAN: To my knowledge, we haven't been in touch with Tesla, but we'll certainly follow up on that. There's always the other question of what the technology is that they're using and what the cost is of that technology.

Tesla is doing some great work in the energy space and moving transportation from carbon fuels to electricity and electrification, which obviously depends on how the electricity is being manufactured. It's interesting that when it comes to energy storage, they are quite advanced.

MS. ZANN: Their batteries.

MR. COOLICAN: There is a researcher at Dalhousie - I know this is off topic, Mr. Chairman, but I think it's a real accomplishment that one of the key researchers for Tesla at the moment is at Dalhousie University.

MS. ZANN: Exactly, yes, and he's doing a lot of that research on batteries.

MR. COOLICAN: Yes.

MS. ZANN: Personally, I look at this as being very similar to electricity and energy, the ways of the future, and they can easily be tied to the homes of the future. We're talking about having homes where you walk in, and the lights come on, everything turns on, and you walk out, and it turns out. I think that Internet and all of this kind of thing will

ultimately be tied in together. It's important not to get tied to some technology that's going to be obsolete in four or five years.

That said, the RFP set a limit to the cost for the government at $750,000. Is that correct?

MR. COOLICAN: That's for the team that's going to do the plan for us. That's not a limit to the amount of money the government is going to be spending.

MS. ZANN: Right. That's $6 million, right?

MR. COOLICAN: It's $6 million in this fiscal year.

MS. ZANN: Is that $750,000 part of the $6 million for this year?

MR. COOLICAN: Yes.

MS. ZANN: It's part of it. Okay. Where did that number come from, $750,000?

MR. COOLICAN: That came from work being done by the department with procurement specialists looking at what we thought would be required in the team, the skill sets that would be required. It seems to be, based on the responses that we've had, an appropriate number.

MS. ZANN: So that's for salaries, you mean, for the team?

MR. COOLICAN: It's for costs for the team. There could be some other costs in that.

MS. ZANN: Who makes up the team? Who's on the team?

MR. COOLICAN: Don't know yet.

MS. ZANN: So you don't have them in place yet?

MR. COOLICAN: No.

MS. ZANN: Will that depend on who gets the project?

MR. COOLICAN: Right.

MS. ZANN: I see. Okay. When did you say that that would be announced?

MR. COOLICAN: I'm not sure when it's going to be announced, but we should have a decision fairly soon.

MS. ZANN: Like this month?

MR. COOLICAN: The end of this month or early next month.

MS. ZANN: So the end of this month or early next month. Okay. Thank you.

The RFP also states that the department hopes to have the agreement in place - it said that it was by the end of September, but you're saying it's probably by the end of September or early October, correct?

MR. COOLICAN: Correct.

MS. ZANN: Then once the agreement is actually in place, what happens? What are the next steps after that?

MR. COOLICAN: The assignment for that group is to develop a plan for Nova Scotia. I think the first step will be to map the existing assets and where they are to identify gaps, to spend some time looking at where service levels are in different parts of the province, and with that base of information to begin to develop what a longer-term plan would look like.

MS. ZANN: When you say longer-term plan, do you mean for the next 25 years or do you mean for the next year or the next four years, three years? Do you have any idea what that long-term plan looks like?

MR. COOLICAN: I think we would be looking at 10 to 15 years but as I mentioned earlier, I think we should be building for what we think the demands will be. But we would look to begin implementing that plan very quickly. We're not going to wait until year 15 to do that, we would start to implement it quickly.

I think the government needs to - and I'm sure with the help of members and other people across the province - remain vigilant and look at the changes to technology and look at the changes to the demands being put on the system to make sure that we are staying current with demand.

MS. ZANN: So for instance, Seaside did quite a bit of work to improve what they had going on there because they had a lot of complaints. I remember when it first came out, people were excited and they thought that was going to be solving the problems in that particular area, but they did continue to have problems. Now they have improved it. Do you know what kind of improvements they have made there at all?

MR. COOLICAN: They are switching the type of fixed wireless technology that they are using.

MS. ZANN: They are switching from fixed?

MR. COOLICAN: No, they are switching the fixed wireless technology that they were using to another fixed wireless technology.

MS. ZANN: To a non-fixed? Under-fixed? Sorry, it's a little hard to hear.

MR. COOLICAN: No, another non-fixed.

MS. ZANN: Another non-fixed, okay.

MR. COOLICAN: Yes, another technology.

MS. ZANN: And do we know the name of that particular technology?

MR. COOLICAN: I don't, no.

MS. ZANN: Okay. Will there be performance measures actually in place for whoever's proposal is successful?

MR. COOLICAN: For the planning team we will certainly set out objectives that we expect them to complete. Also in the money that will be provided to service providers to improve their systems, we will definitely be looking at the outcomes and what we expect as outcomes. I think one of the things that came as a clear lesson from the last investment was the issue of accountability, so we'll be paying close attention to that.

MS. ZANN: Right now, how many providers are there in Nova Scotia?

MR. COOLICAN: There are about half a dozen. There are a couple more, but they are quite small. There are also come community groups that have come together to provide service.

MS. ZANN: I have only a couple more minutes. In the report that was prepared by Ernst & Young it outlines three alternatives available to provide fixed Internet services; fixed wireless, wired and satellite. So does the department have any sense of what might be the best solution for Nova Scotia at this point in time? As I mentioned, there is also the Tesla model.

MR. COOLICAN: I think our approach at the moment is to continue to look at different technologies, depending on the circumstances. We think in some areas satellite may be an important backstop so that we might be able to improve the fixed wireless or the wire connections in a certain county, but there may be pockets of that county where it doesn't make sense to get service to all areas of the county. Satellite can then be a backstop that would enable us to get service to anybody in that county.

MS. ZANN: So you might use a mixture of the three then. Okay, thank you very much. I believe my time is up.

MR. CHAIRMAN: We'll move to the Liberal caucus, and Ms. Lohnes-Croft.

MS. SUZANNE LOHNES-CROFT: I'm one of the rural MLAs who get frequent calls about rural Internet service and dead zones. I think one of the big concerns I get is that a lot of people have service but it's inadequate. You have people doing banking transactions and business transactions, and they never know whether it's been received or not because their Internet has been interrupted or just stops service. It is a really big issue. More and more of our schools, as you've heard, are using it. We can now access our medical records online. So it's of concern, and with due cause; I do understand it.

For 10 years, we've been at this. We know the previous commitment of 100 per cent was unrealistic. What do you consider to be realistic?

MR. COOLICAN: We haven't come up with a number. We'd like to connect as many as possible. We'd like as many as possible to get service that meets their needs. But we haven't yet defined that in an objective way.

I also want to underline that we understand the concerns of businesses that are trying to do business from areas that are not well served. We understand especially the future where schools are going and the concerns that parents are having that their kids aren't able to access their homework over the Internet and also that more and more, health care is going to have an impact.

I think when you look at what the province has done to date, we do think that we have to be fairly transparent with Nova Scotians about our ability to improve the service for every single Nova Scotian. As I've mentioned, we think satellite may help us to get there, but until we have that kind of a solution in place, I don't think that we should be holding out the promise that we're going to serve every Nova Scotian. We have to be honest about what's possible.

At the same time, we do understand the importance of these connections to the economy of the Province of Nova Scotia, to the health of Nova Scotians, and to the education of Nova Scotians. So we take the issue very seriously. It's not just about home entertainment.

I think we should also recognize, again, that the plan that was created 10 years ago - at the time that plan was created, it was probably pretty good. But it was a plan created for then, and almost immediately the demand increased significantly. So I think it's important that as we do our work now in developing a plan we think about where things might go 10 or 15 years from now as we're designing it. You can pretty well guarantee that the way things turn out 10 or 15 years from now will probably be somewhat different from what we project or predict.

That's why it's going to be important for the government to remain vigilant as to what changes there are in demands and what changes there are in the technology so that as

people come up with new solutions, we're open to those and open to changing our plan to take advantage of those.

MS. LOHNES-CROFT: Personal cost to the client must be part of this consideration because in rural Nova Scotia I know lots of families don't have Internet just because of the cost. Yet I'm hearing from parents now that with iPads in the classroom, I have to get Internet so my child can do their homework and whatnot. Will there be some consideration into the cost that it will be for people to get Internet into their homes?

MR. COOLICAN: We have to think about the cost for individual users. We also have to think about the cost to the taxpayer of doing this work because we are the people who are paying for it.

I think there's a bit of a misunderstanding about costs, I think there would be issues, if you talk to your colleague from the Spryfield area I'm sure he would tell me that there are families in his area who have the same difficulty coming up with payments for Internet service. Just because you are in Halifax doesn't mean you don't have that issue. It is something we have to be thinking about but we also have to be realistic that this is not going to be inexpensive for the government to undertake.

MS. LOHNES-CROFT: In your opening statement, deputy, you said that Internet service is a federal jurisdiction. How are you working with the feds on providing better rural Internet?

MR. COOLICAN: We have been talking to the federal government at all levels. Monique and MJ have conversations with their colleagues at the officials' level with the federal government and have quite a good relationship with them, so there's good discussions going on there. That's through the department which is now called ISED - Innovation, Science and Economic Development. I have had conversations with the Deputy Minister of ISED and our minister has had conversations with the staff. Our staff are also talking to staff at the CRTC to make sure that we're sharing information.

As I mentioned earlier, I think that the planning we're doing now is going to be quite well-timed so that when the federal program is announced and becomes available we should be in a good position to take advantage of that as quickly as possible.

MS. LOHNES-CROFT: I get flyers in the mail all the time, service providers who can guarantee Internet service in rural Nova Scotia. I won't name names of companies but I've had constituents who have bought into some of this, they've spent a lot of money and they are not receiving the Internet service. They call the tech person, they call their hot line, their service line and they're not getting results. Is there any way that we can hold these providers accountable, other than the CRTC? Do they have to be licensed to provide this service in Nova Scotia? Or are they just allowed to come in and . . .

MR. COOLICAN: All that regulation does take place through the CRTC and I think it would be a mistake for the province to try to regulate at the same time for the levels of service that are there.

As we've discussed, in some cases the issue is the notion of the "up to" speeds and people when they're buying don't always pay attention to the "up to" but when they are using, they get quite upset that they are not getting the speed they thought they were getting. We need to take that into consideration when we're looking at the sort of plan that we think would work for Nova Scotia, to try to make sure that we're designing a system that will be capable of handling the amount of data and usage that will be on the system five years from now.

When the private sector is doing work to put services in place where the provincial government has provided funding, we will be trying to make sure those companies are held accountable to provide the infrastructure they say they are going to provide.

MS. LOHNES-CROFT: I'm going to ask a question that I get asked. I can get Internet on my cellphone but I can't get it at my house - why?

MR. COOLICAN: As I described to your colleague, I'm not a technical expert but I think there are different costs to cellphone service that if you were using that consistently as your way to access data, the cost would be quite significant. So you pay for one Internet connection to your house, for example, if you have three or four people using cellphones you've got three or four bills coming in, plus it's an expensive way to bring in significant amounts of data.

It can work when it's the only alternative and it can work if you are using limited data but at this point, it's not the long-term solution.

MS. LOHNES-CROFT: And it's not efficient for government to look into that type of providing.

MR. COOLICAN: No.

MS. LOHNES-CROFT: Okay, that's fine. That's all I have.

MR. CHAIRMAN: Thank you very much. Mr. Coolican, I'll give you a chance to provide some closing comments.

MR. COOLICAN: Is there a time limit?

MR. CHAIRMAN: There is a time limit - how much time would you need?

MR. COOLICAN: I'm always reminded of a story but I won't tell that story because it would use up all my time if I do. I'd just like to thank the committee for their

questions. We definitely understand that this is an issue that a lot of people in the low density areas of the province are hearing a lot about and we understand that it's a challenge.

We also understand that it's important for the economic development, for businesses, for education, for health care in different parts of the province as a whole. We hope that if we take the time to plan it properly, we'll be able to build a service that people will be able to say that Nova Scotia is a leader in this area.

MR. CHAIRMAN: Thank you very much, we're all hopeful for that.

Our next meeting is September 28th and that will be with the Department of Health and Wellness and the Nova Scotia Health Authority to discuss Chapter 2 of the Auditor General's Report on hospital system capacity.

We have just one item of business, that being the record of decision for future topics that was approved by the subcommittee. I believe you have the list of meetings - it's called the record of decision, I believe you have that in front of you. Does anybody have any comments on those topics?

Would all those in favour of the motion please say Aye. Contrary minded, Nay.

Our clerk will take note that those topics are now approved and she will proceed with scheduling those meetings. Are there any other comments? Mr. Houston.

MR. HOUSTON: We have had the Department of Transportation and Infrastructure Renewal here a number of times and last year we had them here to talk about road improvements and some of the related topics around budget for road improvement and repairs. I'd like to make a motion before the committee this morning to elaborate on some of that discussion.

Specifically, I'd like to make a motion that the committee write to the Department of Transportation and Infrastructure Renewal and ask them to provide a breakdown of investments, by constituencies, for all paving under the capital plan budget and all maintenance paving budgets as well.

So, I'd like to ask that the committee write to the department and ask for the breakdown by constituency for those types of projects.

MR. CHAIRMAN: The motion before the committee is to write to the Department of Transportation and Infrastructure Renewal to get a summary of paving, as was described by the member, by constituency.

Would all those in favour of the motion please say Aye. Contrary minded, Nay.

The motion is carried.

Our committee clerk will make note of that and we will draft a letter to send to the department.

Any other comments or questions? Hearing none, this meeting is adjourned.

[The committee adjourned at 10:50 a.m.]