



14 July 2015

John Traversy
Secretary General
CRTC
Ottawa, ON K1A 0N2

Dear Secretary General,

Re: Review of basic telecommunications services, Telecom Notice of Consultation 2015-134 (Ottawa, 9 April 2015) and 2015-134-1 (Ottawa,

- 1 The Forum for Research and Policy in Communications (FRPC) is a non-profit and non-partisan organization established to undertake research and policy analysis about communications, including telecommunications and broadcasting. The Forum supports a strong Canadian communications system that serves the public interest.
- 2 We are pleased to participate in the process initiated by Telecom Notice of Consultation CRTC 2015-134 and its amendment (2015-134-1) which seeks comments on the telecommunications services Canadians require to participate meaningfully in the digital economy.
- 3 The attached comments set out our views. FRPC asks to appear at the CRTC's April 2016 public hearing, to respond to other parties' submissions and evidence, and to answer questions from the CRTC hearing panel.

We look forward to the opportunity of reviewing the information submitted by telecommunications service providers (TSPs) and others' comments. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely yours,

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**Telecom Notices of Consultation
CRTC 2015-134 and 2015-134-1**

Call for Comments

Review of basic telecommunications services



Comments

Forum for Research and Policy in Communications (FRPC)

**What do Canadians need for meaningful telecommunications participation
in Canadian society and Canada's economy?**

14 July 2015

PRÉCIS OF FRPC'S SUBMISSION

- Canada is in the midst of a fundamental shift in its use of telecommunications services: while roughly half its population grew up with wireline telephone service only, the other half has only known wireless telephone technology
- Setting a path for a telecommunications future that maximizes benefits for all Canadians requires significantly higher broadband speeds, regulatory approaches to guarantee the affordability of wireline, wireless and Internet services, and the introduction of new mechanisms to expand 21st century telecommunications to the entire country
- FRPC therefore supports the revision of current basic service obligation requirements: universal and affordable access to landline, wireless and Internet service is a critical first step to achieve a basic quality of life for Canadians, from coast to coast to coast
- FRPC also supports the establishment of a policy to govern access to payphones, a low-cost alternative to residential wireline and to wireless service which benefits those most likely to be harmed by the loss of payphone access to Canada's communications system:
 - All residents of Canada, in times of public emergency, including the hundreds of thousands of people who were affected by 204 declared public emergencies between 2004 and 2012
 - Hundreds of thousands of people in the midst of personal crises, including victims of crime as well as male and female victims of abuse
 - The 23,000 households without any telephone service, the 2.2 million households without cellphone service, and the 2.3 million households that do not have cellphones for every household member
 - The 25 million visitors to Canada who may not have cellphone service when they arrive
- Finally, FRPC has serious concerns that the data now available to describe telecommunications services in Canada are inadequate, because they do not measure affordability, and exclude Canada's territories: the *Residential Telephone Service Surveys* launched in 1996 stopped asking questions about affordability eight years ago; while penetration levels measure the uptake of services, they do not measure the degree to which services are 'affordable'; and they cover the provinces only
- FRPC also recommends that the Commission
 - 1 order the collection of, and publish data on, the location and availability of functioning payphones in Canada
 - 2 focus in this proceeding on telecommunications users, rather than consumers
 - 4 ensure that its notices of consultation summarize the evidence already available to the CRTC which is relevant to the matters on which it is seeking public comment
 - 4: resume the collection of data about the affordability of telephone service in Canada
 - 5 develop, seek comments on, and implement a telecommunications compliance policy that describes the actions the Commission will take when Parliament's objectives for telecommunications users' social and economic needs are not being met
 - 6 not make complementarity with other private or public-private initiatives a pre-condition for a new capital infrastructure mechanisms, and
 - 7 develop a regulatory framework for payphones to ensure that this low-cost service is available and accessible to meet telecommunications users' social and economic needs

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Executive Summary

- ES 1** The Forum for Research and Policy in Communications (FRPC) is a non-profit public interest organization focussed on broadcasting, telecommunications and other media.
- ES 2** FRPC's submissions to the CRTC, and in this proceeding, are based on its core principles: to support Parliament's legislative objectives for broadcasting and telecommunications
- to ensure that shelf space exists to present Canadian programming,
 - to support a strong, national public broadcaster,
 - to limit foreign ownership as well as concentrated media ownership,
 - to the interests and opportunities of Canadian artists and other personnel, and
 - to support the collection of reliable data by the CRTC, and greater access to those data by the public.
- ES 3** FRPC notes that the brevity of section 7 of the *Telecommunications Act* with just nine objectives masks the fact that it addresses at least 35 different goals, and that section 47 – with just two subsections about the CRTC's performance and duties with respect to telecommunications – has another 12 goals about the system.
- ES 4** Is Canada's telecommunications system achieving Parliament's objectives for telecommunications? It is difficult to say, due to the absence of publicly available and meaningful data. We note in this context that TNoC 2015-134 refers several times to consumers, while the *Telecommunications Act* does not refer to consumers at all. Focussing on consumers suggests, albeit very subtly, that the goal of telecommunications policy is solely economic – where Parliament instead required telecommunications to also serve Canadians' social interests.
- ES 5** FRPC also notes that TNoC 2015-134 also offered Canadians very little information about the degree to which Parliament's objectives for the telecommunications system are being met. Only three of the notice's 77 paragraphs contained any data at all (paragraphs 2, 6 and 8). Facts and figures about Canadian telecommunications, Canadian users and the impact of telecommunications on society and telecommunications matter because they establish accountability. We urge the Commission to set out more of its own empirical evidence in its notices of consultation so that interested parties need not endlessly reinvent the same wheel.
- ES 6** In terms of increasing reliance on market forces (section 7(f) of the *Act*), FRPC notes that telecommunications companies' profit margins have exceeded the average profit margins of all Canadian industries since 1999. Statistics Canada reported that Canadian industries earned a profit margin of 9.9% in 2013; the telecommunications industry enjoyed an overall profit margin of 19.1%.
- ES 7** Far less is known about the affordability of basic or any other telecommunications services in Canada. The most recent Statistics Canada survey data which measured Canadians' views about the affordability of their landline service was in 2007, and the

Residential Telephone Service Survey has apparently never asked households whether their cell phones or Internet services are affordable. Statistics Canada’s latest research, meanwhile, found that 8.3% of Canadian households did not have the money to buy enough food. In Nunavut this figure rose to 36.2%. If households must choose between food, a telephone, or the Internet, what will they pick?

- ES 8 We suspect that a hundred thousand or more households simply cannot afford basic telecommunications service, because Statistics Canada reported that in December 2013 that 125,459 households (4% of all households) did not have an active cell phone or any other telephone number. We also suspect that hundreds of thousands of households cannot afford more than one telecommunications service.

- ES 9 Gaps in service remain a problem, fifteen years into the 21st century. The Commission’s 2015 *Satellite Inquire Report* found that roughly “1.2 million households do not have access to broadband Internet service at the Commission’s target speeds (5 Mbps download and 1 Mbps upload)”.

- ES 10 The dearth of information about payphones means that it is unclear how or whether these 125,459 households are able to access telecommunications services to meet their social and economic requirements. TNoC 2015-134 is silent about payphones, for instance, an affordable, minimal-cost telecommunications service that benefits everyone: low-income Canadians, Canadians without mobile phones or functioning devices, people in areas struck by emergencies, as well as visitors to Canada. **The CRTC should use this proceeding to establish a lifeline service that includes generally accessible, low-cost payphones [FRPC recommendation 3]. The Commission should also require the resumption of data collection measures that show demonstrate where this low-cost service is being provided by working devices, by whom, and at what cost [FRPC recommendation 4]. Payphones should be part of telecommunications companies’ basic obligations [FRPC recommendation 5].**

- ES 11 Finally, TNoC 2014-134 suffers from a serious evidentiary problem –it presents almost no information about the current state of basic telecommunications service in Canada. Requiring interested parties to locate and assess key telecommunications data that the CRTC already has is a waste of everyone’s limited resources. **The CRTC’s consultation notices should instead present relevant data that the CRTC already has, and identify areas where it lacks information.**

- ES 12 FRPC responses to the questions in TNoC 2015-134 are summarized below. We look forward to reading and commenting on other parties’ submissions, especially with respect to their evidentiary foundations.

TNoC 2015-134 questions about Canadians’ evolving needs for telecommunications services and FRPC’s responses	
1 a. Telecommunications and Canadians’ evolving needs?	
Explain how telecommunications services are used to meet these needs. For example, uses may include e-	It is difficult, if not impossible, to rank Canadians’ uses for telecommunications services in the digital

TNoC 2015-134 questions about Canadians’ evolving needs for telecommunications services and FRPC’s responses	
<p>commerce (i.e. the online purchase and trade of products or services), e-banking and/or telephone banking, e-health or telehealth services, telework, and distance education. Which of these uses of telecommunications services are the most important to ensure that Canadians meaningfully participate in the digital economy?</p>	<p>economy in order of importance. The CRTC should instead consider the extent to which telecommunications services are meeting Parliament’s objectives’ for the telecommunications system, in relation to education, employment, entertainment and safety. The CRTC should also consider Canada’s demography: 51% of the population grew up when the only telephone technology available was a black handset rented from Bell. Even if younger generations do not ‘want’ plain old telephone service, they depend on it when their cell phones lack power, when cell phone service does not exist, or when emergencies wipe out service and electricity altogether.</p>
1 b. Important telecommunications services and their characteristics?	
<p>Explain which telecommunications services are most important to support these needs and uses.</p> <p>What characteristics (e.g. capacity, mobility, high speed, and low latency) should these telecommunications services have?</p>	<p>In our view, the telecommunications services that are most important to meet Canadian users’ economic and social needs are: wireline and wireless service, broadband service, payphone services and 911 (emergency) service. As for the Internet – that we view as an essential service – it is still not as ubiquitous as landline telephone service used to be for reasons related to geography, age and income. In 2012 only 6% of households in Nunavut had Internet access at home – household Internet access across the provinces and territories was consistently below 90%. While 93% of people between 25 and 44 years of age had Internet access in their homes, only 46% of those over 65 years of age had it. FRPC may comment on other parties’ submissions with respect to these services characteristics.</p>
1 c. Barriers to meaningful participation?	
<p>Identify and explain the barriers that limit or prevent Canadians from meaningfully participating in the digital economy (e.g. availability, quality, price, digital literacy, and concerns related to privacy and security). Identify which segments of the Canadian population are experiencing such barriers.</p>	<p>The key barriers that limit or prevent Canadians from participating in a meaningful way in the digital economy are the availability of telecommunications services, and the rates charged for those services. People with low incomes or living in underserved rural areas are most affected by these barriers. Access to the Internet remains low for low-income Canadians: 62.5% had access to the Internet (from any location) in 2012, where 94.5% of high-income figures had access. In 2013 almost half (47.3%) of the households that had no telephone service whatsoever were in non-Census Metropolitan areas (ie, rural areas). Meanwhile, ILEC</p>

TNoC 2015-134 questions about Canadians' evolving needs for telecommunications services and FRPC's responses	
	capital expenditures have hovered at \$4 billion or less per year since 2000.
1 d. Support for meaningful participation	
<i>Identify and explain any enablers that allow Canadians to meaningfully participate in the digital economy (e.g. connected devices and applications).</i>	The main enablers to allow all Canadians to participate meaningfully in the digital economy are: the complete availability of wireline and wireless telephone service, as well as access to high-speed internet, at affordable prices. An equally important enabler is information: sound public policy cannot be based on outdated and invalid data.
1 e. Telecommunications needs in 2025?	
As Canada's digital economy continues to grow and evolve during the next 5 to 10 years, which telecommunications services are Canadians expected to need to participate meaningfully? Specify how your responses to parts a) through d) above would change based on your answer.	FRPC anticipates that Canadians will need affordably priced telecommunications-based services that provide complete mobile access to the internet at increasingly higher speeds, and with higher data caps.
2 Broadband target speeds?	
The Commission's current target speeds for broadband Internet access service are a minimum of 5 Mbps download and 1 Mbps upload, based on uses that consumers should reasonably expect to make of the Internet. Are these target speeds sufficient to meet the minimum needs of Canadians today? If not, what should the new targets be and what time frame would be reasonable to achieve these new targets?	The new target should be 100 megabits per second by 2021. We note Bell's announcement of gigabit service beginning this year in Toronto and other cities; the CRTC should ensure that all Canadians have access to high speed service, at affordable prices.
Questions about CRTC's role in basic telecommunications services' accessibility	
3. Basic telecommunications services for meaningful participation in digital economy?	
Which services should be considered by the Commission as basic telecommunications services necessary for Canadians to be able to meaningfully participate in the digital economy? Explain why.	The three services that are necessary for Canadians to participate in Canadian society and the economy are: wireline and wireless telephone services, and internet service. Each service plays a role in health care, education, government programs and banking – the services identified as 'fundamental' by the Inquiry Officer in her October 2014 Inquiry Report (para. 2). We anticipate that as all levels of government move their services to an e-government environment (including voting), issues of access to services as well as privacy will grow in importance. FRPC submits that payphones are also a basic telecommunications service – as they meet the social and economic requirements of people who cannot afford or do not otherwise have (due to unavailability, emergency or travel) wireline or wireless service.
3a Basic services and technology?	

TNoC 2015-134 questions about Canadians’ evolving needs for telecommunications services and FRPC’s responses	
Explain whether the underlying technology (e.g. cable, digital subscriber line, fibre, fixed wireless, mobile wireless, and satellite technology) should be a factor in defining whether a telecommunications service should be considered a basic service.	At this time FRPC does not consider that the technology that provides a telecommunications service should be a factor in determining whether the service itself is basic, or discretionary.
3b Terms and conditions of basic service?	
Identify, with supporting rationale, the terms, conditions, and service characteristics under which basic telecommunications services should be provided. Should any obligations be placed on the provider(s) of these services? If so, what obligations and on which service provider(s)?	FRPC may comment on this point after reviewing other parties’ submissions.
3c Determine the price of basic service?	
What should be the prices for basic telecommunications services and how should these prices be determined? Provide rationale to support your answer.	FRPC generally reserves the right to comment on other parties’ submissions on this point. The price of basic telecommunications services must be based on affordability. The only data on the affordability of landline service is from 2007, and shows that 225.8 thousand households did not have landline service because they could not afford it. Canada’s unusual characteristics – large country, small population – make it likely that regulatory intervention and support will be needed to ensure the affordability and availability of basic Internet services. That said, when OECD members’ population densities in 2014 are compared with the price charged for megabit of data for broadband service in 2012, Canada’s broadband price is roughly halfway between that of Iceland and Australia – the two other OECD members whose demography most resembles that of Canada.
4. How access to basic service is ensured?	
Can market forces and government funding be relied on to ensure that all Canadians have access to basic telecommunications services? What are the roles of the private sector and the various levels of government (federal, provincial, territorial, and municipal) in ensuring that investment in telecommunications infrastructure results in the availability of modern telecommunications services to all Canadians?	Market forces cannot be relied on to ensure that the 35 million people living in Canada have access to basic telecommunications services because such forces only operate properly when competition is unlimited. Locations where competition is even generally limited lack the market impetus required to discipline rate-setting and other behaviours. Governments should determine where gaps exist, take action to close the gaps and – this is critical – report at least annually, if not every six months, on the degree to which gaps have or have not been closed. Without such reporting Canadian telecommunications resembles <i>Waiting for Godot</i> more than the continued growth and orderly development of an advanced society’s communications infrastructure that benefits everyone.

TNoC 2015-134 questions about Canadians' evolving needs for telecommunications services and FRPC's responses	
	In planning for the next decade of telecommunications services the CRTC should also bear in mind that for the millennial generation (15 to 35 years of age), wireless IS basic service. At the same time those who rely on legacy wireline services should not be disenfranchised.
5. Should the CRTC act to ensure the availability of basic service for all Canadians?	
What should be the Commission's role in ensuring the availability of basic telecommunications services to all Canadians? What action, if any, should the Commission take where Canadians do not have access to telecommunications services that are considered to be basic services?	The CRTC should ensure the availability and affordability of basic service for all people living in Canada through its policies and the tariffs it approves, and by identifying and reporting gaps in service on a quarterly basis (i.e., every three months). The CRTC should seek comments on, issue, implement and enforce a telecommunications compliance policy.
6. What should the CRTC do when its target speeds are not met?	
In Telecom Regulatory Policy 2011-291, the Commission stated that it would closely monitor developments in the industry regarding the achievement of its broadband Internet target speeds to determine whether regulatory intervention may be needed. What action, if any, should the Commission take in cases where its target speeds will not be achieved by the end of 2015?	Publish results from its monitoring within 30 days' of receiving information from members of the industry. Seek comments on, and issue a telecommunications compliance policy.
7 a Capital infrastructure mechanism for Northwestel's territory?	
Explain, with supporting rationale, whether there is a need for the Commission to establish a capital infrastructure investment mechanism in Northwestel's operating territory. As well, explain whether there is a need for such a mechanism in other regions of Canada.	Insufficient information has been published about Northwestel's installation of infrastructure in its operating territory to make informed submissions on this point. FRPC notes, however, that requiring complementarity may delay and ultimately stymie the effectiveness of this mechanism.
7 b Impact of a capital infrastructure mechanism for Northwestel?	
What impact would the establishment of such a mechanism have on private sector investment and government programs to fund the provision of modern telecommunications services?	FRPC reserves the right to comment on other parties' submissions, but notes that such a mechanism could stimulate new private-sector investment in sectors that rely on, but do not have access to, high quality, reliable, modern telecommunications infrastructure at affordable rates. Replacing tax-funded government infrastructure programs with a capital infrastructure mechanism could also allow tax dollars to be allocated elsewhere.
Questions about regulatory measures for basic telecommunications services	
8. Changes to obligation to serve and basic service obligation?	
What changes, if any, should be made to the obligation to serve and the basic service objective?	The basic service obligation should include affordable broadband, wireline service, wireless service, 911 service and low-cost payphones
9. Define broadband and other services as basic service?	
Should broadband Internet service be defined as a basic telecommunications service? What other services, if any,	Yes. 911 services – from coast to coast to coast.

TNoC 2015-134 questions about Canadians' evolving needs for telecommunications services and FRPC's responses	
should be defined as basic telecommunications services?	Local payphones in key transportation social, educational, commercial and other institutions (<i>i.e.</i> , police stations, hospitals, schools, shopping centres).
10. Changes to local service subsidy regime?	
What changes, if any, should be made to the existing local service subsidy regime? What resulting changes, if any, would be required to the existing regulatory frameworks (e.g. price cap regimes)?	FRPC reserves the right to comment on other parties' submissions.
11. Changes to contribution collection mechanism?	
What changes, if any, should be made to the contribution collection mechanism? Your response should address, with supporting rationale, which TSPs should be required to contribute to the NCF, which revenues should be contribution-eligible and which revenues, if any, should be excluded from the calculation of contribution-eligible revenues.	FRPC reserves the right to comment on other parties' submissions.
12. Subsidies for basic telecommunications services?	
Should some or all services that are considered to be basic telecommunications services be subsidized? Explain, with supporting details, which services should be subsidized and under what circumstances.	FRPC reserves the right to comment on other parties' submissions.
13. New funding mechanism for modern telecommunications services?	
If there is a need to establish a new funding mechanism to support the provision of modern telecommunications services, describe how this mechanism would operate. Your response should address the mechanism described in Telecom Regulatory Policy 2013-711 for transport services and/or any other mechanism necessary to support modern telecommunications services across Canada. Your response should also address, but not necessarily be limited to, the following questions:	FRPC reserves the right to comment on other parties' submissions.
13.a What types of infrastructure and/or services should be funded?	
13.b In which regions of Canada should funding be provided?	
13.c Eligibility for funding mechanism?	
Which service providers should be eligible to receive funding, and how should eligibility for funding be determined (e.g. only one service provider per area, all service providers that meet certain conditions, wireless service providers, or service providers that win a competitive bidding process)?	
13.d Amount of funding?	
How should the amount of funding be determined (e.g. based on costs to provide service or a competitive bidding process)?	
13.e Distributing funding?	

TNoC 2015-134 questions about Canadians' evolving needs for telecommunications services and FRPC's responses	
<p>What is the appropriate mechanism for distributing funding? For example, should this funding be (i) paid to the service provider based on revenues and costs, or (ii) awarded based on a competitive bidding process?</p>	
<p>13.f Wholesale availability of funded infrastructure?</p>	
<p>Should any infrastructure that is funded be available on a wholesale basis and, if so, under what terms and conditions?</p>	
<p>13.g Set retail rates for subsidized services?</p>	
<p>Should the Commission set a maximum retail rate for any telecommunications service that is subsidized?</p>	<p>Yes: the CRTC's establishment of maximum retail rates for subsidized telecommunications services will serve the public interest, provided the maximum rates are based on empirical evidence of affordability.</p>
<p>13.h Replace local wireline service subsidy?</p>	
<p>Should this mechanism replace the existing residential local wireline service subsidy? If so, explain how the existing subsidy should be eliminated, including details on any transition period. In addition, explain whether the small ILECs and/or Northwestel should be subject to any special considerations or modifications for this transition period.</p>	<p>FRPC reserves the right to comment on other parties' submission on this point.</p>

I Introduction: Forum for Research and Policy in Communications (FRPC)

- 1 The Forum for Research and Policy in Communications (FRPC) was established in late 2013, as a federal non-profit, non-soliciting public interest organization. We study issues related to broadcasting, telecommunications and other media. FRPC uses its research to make submissions to the CRTC, Industry Canada, Parliament and other organizations, and also organizes conferences and workshops about Canada's communications systems.
- 2 We appreciate this opportunity to participate in the CRTC's review of telecommunications companies' basic obligation to serve.
- 3 Our comments on TNoC 2015-134 follow, after a brief discussion to provide a context for our remarks. Part II then addresses the first set of the CRTC's questions with respect to Canadians' needs. Part III responds to the CRTC's questions about its role, while Part IV addresses regulatory measures for basic telecommunications services.

A FRPC's principles

- 4 FRPC's submissions to the CRTC are based on its core principles. Briefly, FRPC seeks to
 - support Parliament's objectives for Canada's broadcasting and telecommunications systems, as defined by the Broadcasting Act and the Telecommunications Act
 - ensure that there is sufficient room on Canadian airwaves for the presentation of programming that reflects Canadian history, Canadian values and Canadian views on matters of public concern.
 - ensure the presence of a strong, national, public broadcaster
 - limit foreign ownership in Canadian communications
 - discourage and if possible, lessen concentration of ownership
 - help protect the interests of, and develop opportunities for, Canadian artists and other personnel (cultural and industrial policy) in communications
 - support the collection of valid and reliable statistical and other data by the CRTC
 - promote greater public access to data collected and held by the CRTC, and to
 - support lower BDU and telephone rates, in line with the rates in other developed countries.
- 5 In this proceeding FRPC's view may be summarized as follows: uniform and affordable access to the best available means of telecommunications in all Canadian communities is an important first step in achieving a guaranteed, basic quality of life in this respect, from coast to coast to coast.

B Parliament's objectives and the CRTC's role

- 6 Canada's current telecommunications legislation – the *Telecommunications Act* – came into force in October 1993. At the time Canada's telecommunications system had already begun to transform from wire to wireless, as wireless telephone companies had been operating for almost a decade. (Industry Canada licensed incumbent local exchange carriers (ILECs) and Rogers to offer analog cellular telephone service in 1984.¹)
- 7 The scope of the CRTC's authority continued to widen after 1993. It acquired jurisdiction over independent telephone companies in 1994. Digital personal communications services – wireless communications services that offered more services than analog cellular telephony – were licensed to provide service in 1995.² The CRTC began to consider its authority over the internet in 1996.³
- 8 Parliament directed the CRTC to “exercise its powers and perform its duties” under the *Telecommunications Act* “with a view to implementing the Canadian telecommunications policy objectives”, and to “ensuring that Canadian telecommunications carriers provide telecommunications service and charge rates in accordance with section 27 and ... any orders” made by Cabinet.⁴
- 9 While Parliament set only nine objectives in section 7 of the *Telecommunications Act*, these address at least 35 separate goals (see Table 1).

Table 1: Thirty-five goals set by Parliament for Canada's telecommunications system

Parliament's objectives for telecommunications in Canada: 35 goals	
Objectives	Summary
7. It is hereby affirmed that telecommunications performs an essential role in the maintenance of Canada's identity and sovereignty and that the Canadian telecommunications policy has as its objectives	1. Maintain Canadian identity 2. Maintain Canadian sovereignty
(a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions;	3. Orderly development 4. Safeguard social fabric 5. Safeguard economic fabric 6. Enrich social fabric 7. Enrich economic fabric 8. Strengthen social fabric

¹ CRTC, *Status of Competition in Canadian Telecommunications Markets: Deployment/Accessibility of Advanced Telecommunications Infrastructure and Services*, (Ottawa, September 2001) at 34.

² *Ibid.*

³ In *Regulation of Broadcasting Distribution Undertakings that Provide Non-Programming Services*, Decision CRTC 94-1 (Ottawa, 30 January 1996) the CRTC found that broadcast distribution undertakings were telecommunications common carriers when they use their distribution networks for non-programming services such as the internet.

⁴ S. 47.

	9. Strengthen economic fabric
(b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;	10. Reliable services in urban areas 11. Reliable service in rural areas 12. Reliable service in all regions 13. Affordable services in urban areas 14. Affordable services in rural areas 15. Affordable services in all regions 16. High quality services in urban areas 17. High quality services in rural areas 18. High quality services in all regions
(c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;	19. Efficient telecommunications nationally 20. Efficient telecommunications internationally 21. Competitive telecommunications nationally 22. Competitive telecommunications internationally
(d) to promote the ownership and control of Canadian carriers by Canadians;	23. Canadian ownership of carriers 24. Canadian control of carriers
(e) to promote the use of Canadian transmission facilities for telecommunications within Canada and between Canada and points outside Canada;	25. Promote use of Canadian transmission facilities in Canada 26. Promote use of Canadian transmission facilities between Canada and other places
(f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective;	27. Foster more reliance on market forces to provide telecommunications services 28. Ensure that regulation is efficient 29. Ensure that regulation is effective
(g) to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services;	30. Stimulate research on telecommunications in Canada 31. Stimulate development of telecommunications in Canada 32. Encourage innovative provision of telecommunications services
(h) to respond to the economic and social requirements of users of telecommunications services; and	33. Respond to users' economic requirements for telecommunications services 34. Respond to users' social requirements for telecommunications services
(i) to contribute to the protection of the privacy of persons.	35. Help to protect individuals' privacy

10 In interpreting the Act's objectives the courts have held that they require the CRTC to ensure that telecommunications rates are just and reasonable at all times,⁵ with the Supreme Court describing this role as "[a] central responsibility of the CRTC".⁶ The Court has also pointed out that section 47 clarifies the CRTC's approach to implementing the section 7 objectives.⁷ Section 47 contains another eleven goals (see Table 2).

⁵ *Bell Canada v. Bell Aliant Regional Communications*, [2009] 2 SCR 764 at ¶130.

⁶ *Ibid.*, at ¶136.

⁷ *Ibid.*, at ¶142.

Table 2: Twelve goals set by Parliament for services and their rates

Section 47: CRTC powers and duties	
47. The Commission shall exercise its powers and perform its duties under this Act and any special Act	<ol style="list-style-type: none"> 1. exercise its powers 2. perform its duties
(a) with a view to implementing the Canadian telecommunications policy objectives and ensuring that Canadian carriers provide telecommunications services and charge rates in accordance with section 27; and	<ol style="list-style-type: none"> 3. to implement section 7's objectives 4. ensuring that Canadian carriers provide telecommunications services in accordance with section 27: 5. no unjust discrimination 6. no undue preference 7. no unreasonable preference 8. no undue disadvantage 9. no unreasonable disadvantage 10. ensuring that Canadian carriers charge rates for telecommunications in accordance with section 27 – i.e., just and reasonable rates (based on any method considered appropriate by the CRTC)
(b) in accordance with any orders made by the Governor in Council under section 8 or any standards prescribed by the Minister under section 15.	<ol style="list-style-type: none"> 11. in accordance with GIC orders 12. in accordance with Minister's standards

11 In 2006 the government of Canada issued a Telecom policy direction⁸ (*Direction*) stating that the Commission should

- rely on market forces to the maximum extent feasible to achieve Parliament's telecommunications policy objectives
- use regulation-based measures that are efficient and proportionate to their purpose, and
- use regulation-based measures that interfere with the operation of competitive market forces to the minimum necessary to meet the objectives.

12 The courts have also held that the CRTC should interpret and apply the *Act's* objectives to clarify, not to frustrate, Parliament's intent.⁹

13 In our view, the central thrust of sections 7 and 47 is to ensure that all Canadians – regardless of where they choose to live – have equitable access to the same quality and diversity of Canadian telecommunications services, at roughly the same price. The CRTC must respect Cabinet's authority in seeking to promote competition in a sector of the economy that, like many other utilities, is unlikely to ever have four or more major

⁸ *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, SOR/2006-355.

⁹ *Barrie Public Utilities v. Canadian Cable Television Assn.*, 2003 SCC 28 at ¶146, [2003] 1 S.C.R. 476.

players. But it must also ensure that the issue of affordability is not sacrificed indefinitely in the hopes that competition will somehow, some day, reduce high prices.

C Competitive markets

14 As for competition, the fundamental dilemma for the Commission in this proceeding, and every other telecommunications policy proceeding, is that the government has not clearly defined what it means when it talks about ‘market forces’ or ‘competitive market forces’.

15 The CRTC addressed these concepts in 1994, when it reviewed and revised its regulatory framework for telecommunications. It noted that the *Telecommunications Act* “contemplates the evolution of basic service by setting out as an objective the provision of reliable and affordable telecommunications, rather than merely affordable telephone service.”¹⁰

16 Before the Internet emerged in the late 1990s, the Commission was already considering the idea that Internet-based services might become essential to subscribers:

... As interactive or transactional services become increasingly available, access to these and other information services may also come to be considered essential by many subscribers.¹¹

17 The CRTC also noted that while “[m]arket forces ... ensure that user applications, not regulators, drive supply considerations”, regulation would continue to be necessary

... to ensure that service is affordable, where market forces are not sufficient to provide that assurance, and to address issues of undue preference and unjust discrimination that arise due to the vertically integrated nature of the telephone companies and their dominance in some markets.¹²

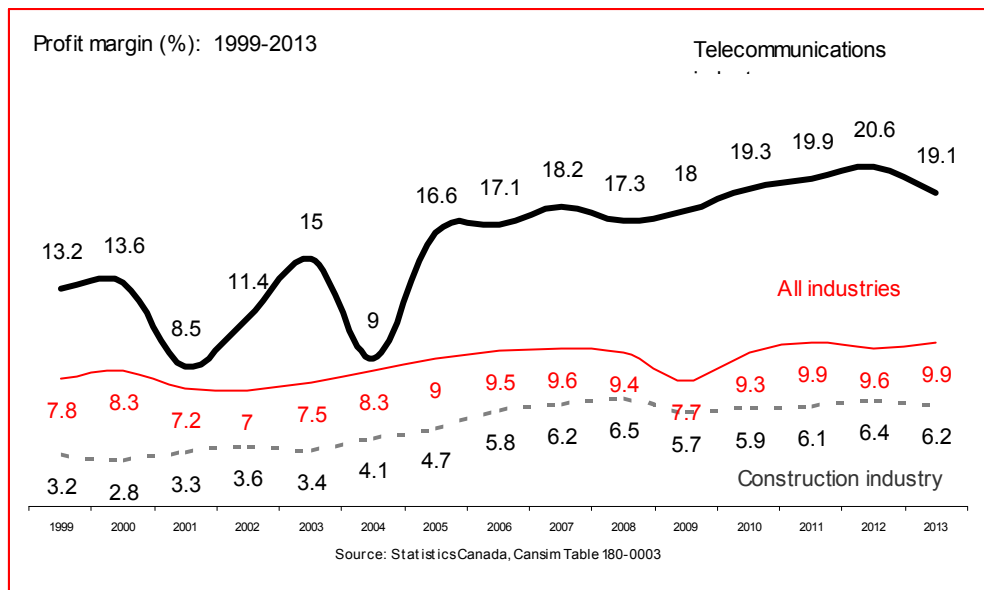
18 An especially striking feature of Canada’s telecommunications sector today is that its financial performance is enviable, despite the level of regulation it endures. As Figure 1 shows, telecommunications profit margins (revenues-expenses/revenues) have consistently exceeded those earned by heavily and less heavily regulated Canadian industries in general. It is also and roughly three times higher than that of the construction industry – an economic sector that is subject to less stringent regulation than telecommunications companies.

¹⁰ *Review of Regulatory Framework*, Telecom Decision CRTC 94-19 (Ottawa, 16 September 1994), <http://www.crtc.gc.ca/eng/archive/1994/dt94-19.htm>.

¹¹ *Ibid.*

¹² *Ibid.*

Figure 1 Profit margin of all industries, the telecommunications industry and the construction industry, 1999 to 2013



19 FRPC respectfully submits that the Commission should bear the telecommunications sector's generally superior financial performance when it considers proposals to ensure that basic rates become more affordable. Although the market forces that have brought Canada's telecommunications system this far have generated enormous profits, even complete telecommunications service still does not extend to Canada's rural areas and to all of its regions, thousands of Canadian households cannot afford basic telecommunications services, and thousands of other Canadian households can only afford one basic service, not several.

20 The central question raised by this basic service obligation proceeding for FRPC is therefore this: if telecommunications services that are essential for participating in Canadian society and its economy are not available to all at affordable rates, how will all Canadians and all regions of the country be able to benefit from digital communications technology?

D The concept of affordability

21 The *Telecommunications Act* does not define affordability. It has been argued from time to time that the affordability of Canadian telecommunications services should be measured by the degree to which telecommunications users subscribe to the services. In 1996 the Commission posited that "... that the national telephone penetration rate is

the key indicator of overall affordability.”¹³ The Commission then said that it required more data:

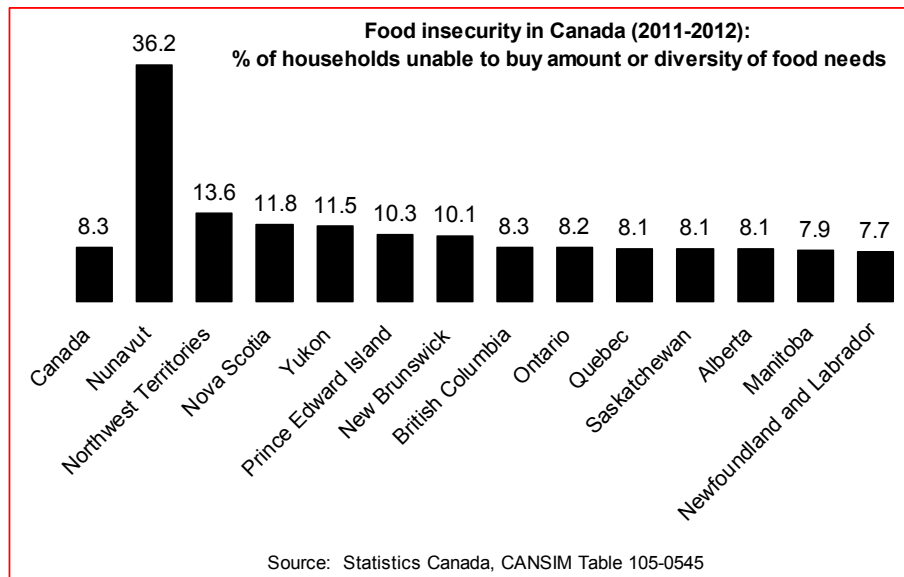
.... statistics on telephone penetration rates by household income group and by province would be useful as they would assist in identifying the regions and income brackets where affordability concerns may lie.

- 22 FRPC respectfully submits that penetration rates measure the percentage of the population that uses a service, not affordability. Landline telephone penetration rates have begun to decrease, for instance, not because their rates are becoming less affordable, but because cell phones are beginning to replace them.
- 23 Viewing penetration as a measure of affordability ignores the concept of necessity: people may have to reduce their expenditures in some areas, to afford communications services whose rates increase. It may be more appropriate to measure affordability in terms of the income that remains for households once they have paid for their telecommunications services.¹⁴
- 24 Research released in March 2015 by Statistics Canada found that in 2011-2012 just over one million Canadian households (8% of households) did not have enough money to buy the amount or variety of food they needed; Statistics Canada’s term for this is ‘food insecurity’. The highest levels of food insecurity were in the North and three of the four Atlantic provinces (Figure 2). In Nunavut, for example, more than one in three households cannot afford to buy enough or to buy a sufficient variety of food.

Figure 2: Food insecurity, by province and territory in 2011-2012

¹³ *Local Service Pricing Options*, Telecom Decision CRTC 96-10 (Ottawa, 15 November 1996), <http://www.crtc.gc.ca/eng/archive/1996/dt96-10.htm>.

¹⁴ Ioannis Kessides, Raffaele Miniaci, Carlo Scarpa and Paola Valbonesi, “Toward Defining and Measuring the Affordability of Public Utility Services,” (April 2009) The World Bank Development Research Group Environment and Energy Team, Policy Research Working Paper 4915, at 29.



- 25 The point raised by these data is that measuring the affordability of telecommunications services simply by penetration levels obscures the fact that the current prices of unregulated but necessary services may require lower-income households to choose between the essential requirements of living (food, medicine, clothing) and telecommunications services. Canadians' needs should not be ignored to permit telecommunications profit levels to rise.
- 26 That said, the CRTC should not measure affordability by penetration rates, but by data that are valid and reliable indicators of the degree to which Canadians can, or cannot, afford the current prices of basic telecommunications services. The CRTC should therefore collect and report annually on the affordability of telephone services in Canada. It should ask interested parties for their views on defining and measuring the concept of affordability, and consider developing an empirical index of this important term.
- E The basic obligation to serve – gaps, focus and unanswered questions in TNoC 2015-134**
- 27 While welcoming the opportunity to participate in this proceeding, FRPC would also like to comment on the CRTC's notice of consultation.
- 28 We note first, that the CRTC has not yet issued its determination about notification requirements for removing the last payphone from communities – proceeding initiated in February 2015.¹⁵ FRPC's submission in that proceeding identified critical problems

¹⁵ *Results of the fact-finding process on the role of payphones in the Canadian communications system - Follow-up process concerning the public notification policy for the removal of the last payphone in a community – Call for comments, Telecom Notice of Consultation 2015-66 (Ottawa, 26 February 2015).*

with data about payphones in Canada – namely, the absence of consistently reported information about functioning payphones’ locations and numbers. Statistics are the foundation of effective public policy: FRPC again recommends that the CRTC order the resumption of the collection of payphone data, and resume publication of this information in the CRTC’s next *Communications Monitoring Report*.

FRPC recommendation 1 The CRTC should order the collection of, and publish, data on the location and availability of functioning payphones in Canada

- 29 FRPC’s submission in that proceeding urged the CRTC to include the issue of payphones in this basic service obligation proceeding – but that has not happened. The absence of any determination whatsoever about the future of payphone service in Canada has made it more difficult to comment on the future direction of basic service requirements for all Canadians.
- 30 FRPC also wishes to take this opportunity to comment on TNoC 2015-134’s references to “consumers”.¹⁶ This term is neither defined by nor used in the *Telecommunications Act*. Focussing on the interests of ‘consumers’ may inadvertently distract attention from the *Act*’s concern for telecommunications users. In FRPC’s view, the Commission’s focus in this proceeding should not be on consumers, but on telecommunications users’ economic and social requirements.

FRPC recommendation 2 The CRTC’s focus in this proceeding should be on telecommunications users, rather than consumers

- 31 FRPC respectfully notes that very little information is provided in TNoC 2015-134 which could assist interested parties in developing their responses to the thirteen general questions that actually contain 32 more detailed questions.¹⁷ Just three of the 77

¹⁶ See *e.g.*, at para. 4: “... in many rural and remote areas, access to these services or to more than one TSP may be limited, which may impact the ability of consumers living in these areas to participate in the digital economy.”

See also para. 20: “However, where there is insufficient competition to protect the interests of consumers, ILECs’ retail telecommunications services are subject to price cap regulation.”

And see para. 25: “As well, in recognition of the evolving nature of the Internet and consumer expectations, the Commission stated that it may revisit these target speeds.”

¹⁷ For example, here is question 3 from TNoC 2015-134:

3. Which services should be considered by the Commission as basic telecommunications services necessary for Canadians to be able to meaningfully participate in the digital economy? Explain why.
 1. Explain whether the underlying technology (e.g. cable, digital subscriber line, fibre, fixed wireless, mobile wireless, and satellite technology) should be a factor in defining whether a telecommunications service should be considered a basic service.
 2. Identify, with supporting rationale, the terms, conditions, and service characteristics under which basic telecommunications services should be provided. Should any obligations be placed on the provider(s) of these services? If so, what obligations and on which service provider(s)?
 3. What should be the prices for basic telecommunications services and how should these prices be determined? Provide rationale to support your answer.

paragraphs in the notice provide data about Canada's telecommunications system in 2015:

2. Telecommunications service providers (TSPs) offer a variety of retail services, including wireline voice, Internet, and wireless services, to **over 12 million households and over 1 million businesses** in Canada. In 2013, **revenues for the retail telecommunications service industry were approximately \$41 billion**, and these revenues continue to grow annually, primarily due to the increasing use of wireless and Internet services

...

6. Virtually all Canadians have access to wireline voice and Internet access services, as well as mobile wireless services that provide both voice and Internet functionalities. While **wireline and wireless networks reach over 99% of Canadians**, there are differences in the levels of services available in various regions, particularly in rural and remote areas.

...

8. For example, **the number of telephone lines has decreased from 18.6 million in 2009 to 15.9 million in 2013**, while **the number of mobile wireless service subscribers has increased from 23.5 million in 2009 to 28.4 million in 2013**. Further, **20.4% of Canadian households rely only on mobile wireless services**. Similarly, **the number of Internet service subscribers has increased from 10.4 million in 2009 to 12.1 million in 2013**.

...

(TNoC 2015-134, footnotes omitted, bold font added to highlight factual information)

32 In our view, TNoC 2015-134 should have provided more information about the way in which Parliament's telecommunications objectives are now being met, because gaps in performance will point to areas that the CRTC's regulatory framework for basic service should address.

33 Instead, much of TNoC 2015-134 offers no meaningful information but instead raises questions that distract parties' from the purpose of the notice – to elicit informed views about the future characteristics of the basic obligation to serve. Examples include these vague comments:

- “modern telecommunications services are available in the most densely populated areas of the country from a number of TSPs” (para. 4)
=> which areas?
=> how many TSPs?
=> how many people in these areas subscribe, and how many cannot afford to subscribe?

- “in many rural and remote areas, access to these services or to more than one TSP may be limited which may impact the ability of consumers living in these areas to participate in the digital economy” (para. 4)
 - => how does the CRTC define rural and remote areas?
 - => how many rural and remote areas are there at this time?
 - => how many people live in these rural and remote areas?

 - “there are differences in the levels of services available in various regions, particularly in rural and remote areas” (para. 6)
 - => in what types of services are the differences found?
 - => how large are the difference?
 - => how many regions manifest these differences?
 - => how many rural and remote areas are affected?
 - => how many people live in these areas?

 - “... Canadians are using Internet services ... for an increasing number of uses ... resulting in greater demand for faster speeds” (para. 9)
 - => how many Canadians are using Internet services?
 - => what are Canadians using the Internet for, and does use vary by any specific demographic segment?
 - => what speeds are being used?
 - => what is the foundation for the Commission’s statement that there is greater demand for aster speeds? (Has the CRTC commissioned survey research, for example, that it has not yet published?)
- 34 Yet, as was recently argued in the *International New York Times*, “[e]conomic statistics guide policy and move markets – which is why they should measure what really matters.”¹⁸ Facts and figures about the relationship between telecommunications, society and the economy matter. They are, as the article reminded us, “an essential part of democracy”, because they enable accountability.
- 35 Going forward, FRPC urges the Commission to provide more of its own empirical evidence in its notices of consultation – so that parties such as FRPC and others need not endlessly reinvent the same wheel.

FRPC recommendation 3 The CRTC’s notices of consultation should contain or summarize the evidence that the CRTC already has about the matters on which it is seeking public comment.

F Statements made in TNoC 2015-134 that are open to question.

- 36 Finally, FRPC would like to express its concern with statements in TNoC 2015-134 which appear on their face to be entirely reasonable – but are not. For example, TNoC 2015-134 writes that “Canadians are reducing their dependency on wireline voice services ...

¹⁸

Adam Davidson, “Creating an Index of Happiness”, *International New York Times* (7 July 2015).

in favour of mobile wireless and broadband internet services”¹⁹ Our concern with this statement is that the reasons for Canadians’ changing use of telecommunications service are simply unknown: are Canadians “reducing their dependency” because they prefer one type of service over another, or are they unable to afford both types of telecommunications service? The answer to this question is critical to the outcome of this proceeding.

37 The Notice also comments that “Modern telecommunications enable Canadians to participate in today’s digital economy and provide access to services”²⁰ It adds at paragraph 10 that improved access to modern telecommunications services “will ensure that Canadians continue to have the ability to participate in the digital economy.”

38 FRPC respectfully submits that the reality – reflected by Parliament in its *Telecommunications Act* – is that telecommunications enable Canadians to participate in today’s economy and society. Basic service obligation decisions should not be framed solely in the context of Canada’s economy and economic actors, but in terms of its society, the members of its society, and their needs and interests.

II Questions about Canadians’ evolving needs for telecommunications services

1 a Telecommunications and Canadians’ evolving needs

Explain how telecommunications services are used to meet these needs. For example, uses may include e-commerce (i.e. the online purchase and trade of products or services), e-banking and/or telephone banking, e-health or telehealth services, telework, and distance education. Which of these uses of telecommunications services are the most important to ensure that Canadians meaningfully participate in the digital economy?

39 FRPC respectfully submits that it is difficult, if not impossible, to rank Canadians’ uses for telecommunications services in the digital economy in order of importance. This would be akin to asking in the pre-digital and pre-wireless era, whether telephone calls to one’s bank were more important than telephone calls to one’s doctor, one’s school, or a store’s catalogue department. Each call might be equally important – but not necessarily at the same time.

40 In our view, a more important first question for the CRTC to consider is the extent to which telecommunications services are meeting Parliament’s objectives’ for the telecommunications system. Section 7(h), for instance, says that Canada’s telecommunications system should respond to users’ “economic and social

¹⁹ Para. 7.

²⁰ TNoC 2015-134, para. 1.

requirements". FRPC submits that 'social' should be interpreted broadly to include all communications that take place for non-economic reasons. These would include and not be limited to communications related to education, employment and entertainment, as well as individuals' safety.

- 41 The second question that must then be asked, in our view, is how Canada's changing demography will affect patterns of telecommunications use. Just over half (51%) of Canada's population grew up when telephone technology was wired (see Table 3).

Table 3: Generations in Canada and the telephone technologies of their teenage years

Generation	Age	Telephone technology available when teenaged	Number	Percentage
1918 and before	93 years and over	Telegraph and landline	91,195	0.3%
Parents of baby boomers (1919 to 1940)	71 to 92 years	Telegraph and landline	3,074,045	9.2%
World War II generation (1941 to 1945)	66 to 70 years	Telegraph and landline	1,444,035	4.3%
Baby boomers (1946 to 1965)	46 to 65 years	Telex and landline	9,564,210	28.6%
Baby busters (1966 to 1971)	40 to 45 years	Telex, fax and landline	2,823,840	8.4%
Children of baby boomers (1972 to 1992)	19 to 39 years	Fax, landline and mobile	9,142,005	27.3%
Generation Z (1993 to 2011)	18 years and less	Landline, smartphones, VoIP	7,337,350	21.9%

Source – demographic data only: Statistics Canada, Census of Population, 2011, Analytical Products: Generations in Canada, 2011, (Table 1), https://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-311-x/2011003/tbl/tbl3_2-1-eng.cfm

- 42 Our point is not that telecommunications policy should be fixed in the past – but rather that Canada is in the uneasy transition phase between wired and wireless technologies. In developing the basic service obligation for the next decade, therefore, the CRTC must still protect the interests of those who rely on legacy technology, while similarly protecting the interests of younger generations that tend to rely on mobile technology – in 2013 60% of households whose members were all under 35 years of age reported using cellphones only.²¹ That said – even if millennials do not want wireline telephone service, they are likely to need it still when their mobile phones run out of power, when they are in areas with poor or no mobile service, or when they are swept up in an emergency situation and lose the use of their cell phones. As FRPC noted in the 2015-66 proceeding, payphones are vital to

- All residents of Canada in times of public emergency, including the hundreds of thousands of people who were affected by 204 declared public emergencies between 2004 and 2012
- Hundreds of thousands of people in the midst of personal crises, including victims of crime as well as male and female victims of abuse

²¹ Statistics Canada, *Residential Telephone Service Survey, 2013*, <http://www.statcan.gc.ca/daily-quotidien/140623/dq140623a-eng.htm>

- The 23,000 households without any telephone service, the 2.2 million households without cellphone service, and the 2.3 million households that do not have cellphones for every household member, and
- The 25 million visitors to Canada who may not have cellphone service when they arrive in our jurisdiction.

43 As for older generations, we note that at the beginning of 2015 the federal government switched from mailing benefits cheques, to directly depositing them in recipients' bank accounts:

The Government of Canada is switching to direct deposit for all its payments. If you currently receive your federal payment(s) such as your income tax refund, GST/HST credits, Canada child tax benefit or Canada Pension Plan payments by cheque, please visit the direct deposit page to enrol in direct deposit. It's the fastest, most convenient, reliable and secure way of receiving your federal payment(s).

Public Works and Government Services Canada, <http://www.tpsgc-pwgsc.gc.ca/recgen/txt/faq-eng.html>

44 The government is advising social benefits recipients who want information about payments that they may be able to obtain information online:

Q15. If there is no stub, how can I get my payment details?

A. If you require further information about your payment after receiving a cheque, you should contact the issuing department or agency identified on the back of your mailing address (Please refer to the cheque image in question 14).

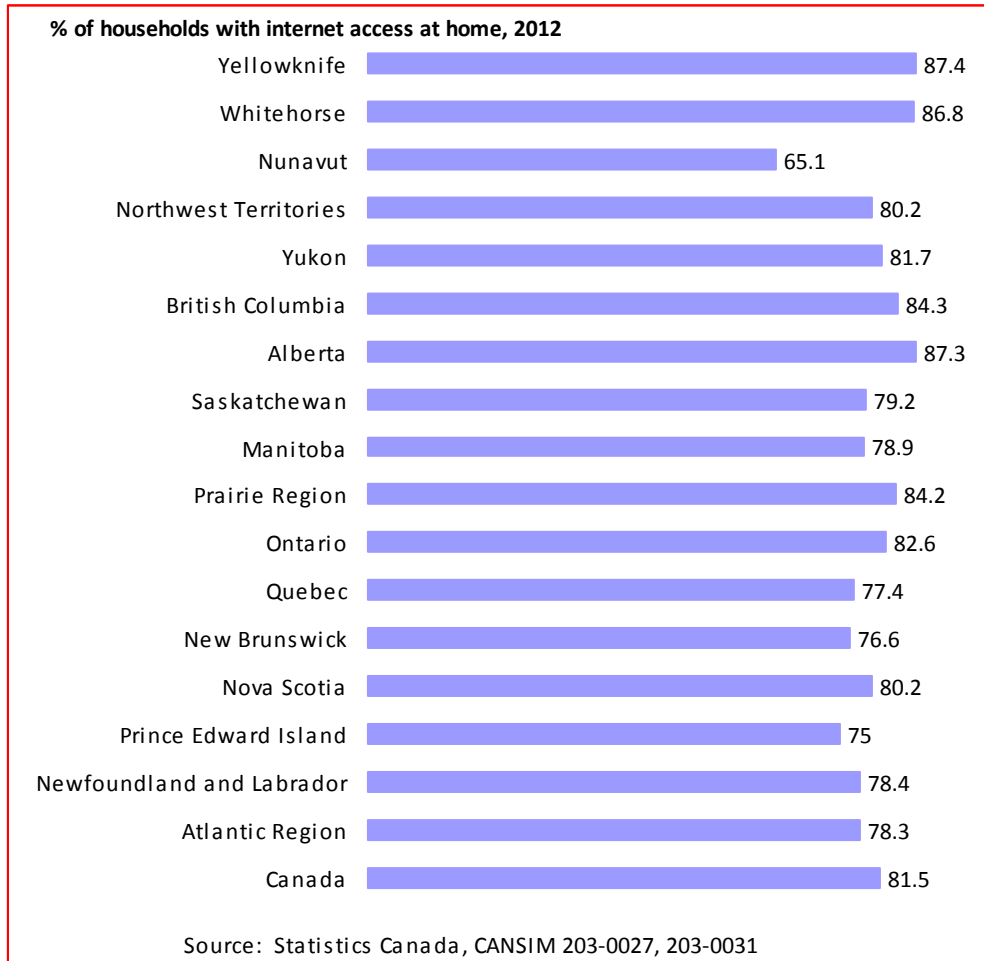
You can also get the contact information for all federal departments and agencies by visiting canada.ca or by calling 1 800 O-Canada (1-800-622-6232).

For some departments and agencies, payment information can be obtained online by registering for their online portal. These include: My Account for the Canada Revenue Agency, My Service Canada Account for Employment and Social Development Canada and My VAC Account for Veterans Affairs Canada.

Public Works and Government Services Canada, <http://www.tpsgc-pwgsc.gc.ca/recgen/txt/faq-eng.html>

45 Governments' movement of services online implies an expectation that all those who deal with government have reasonable and affordable access to the online world – but that is simply not yet the case. As Figure 3 shows, while 81.5% of all households in Canada had Internet access from their homes in 2012, only 65.1% of households in Nunavut had such access.

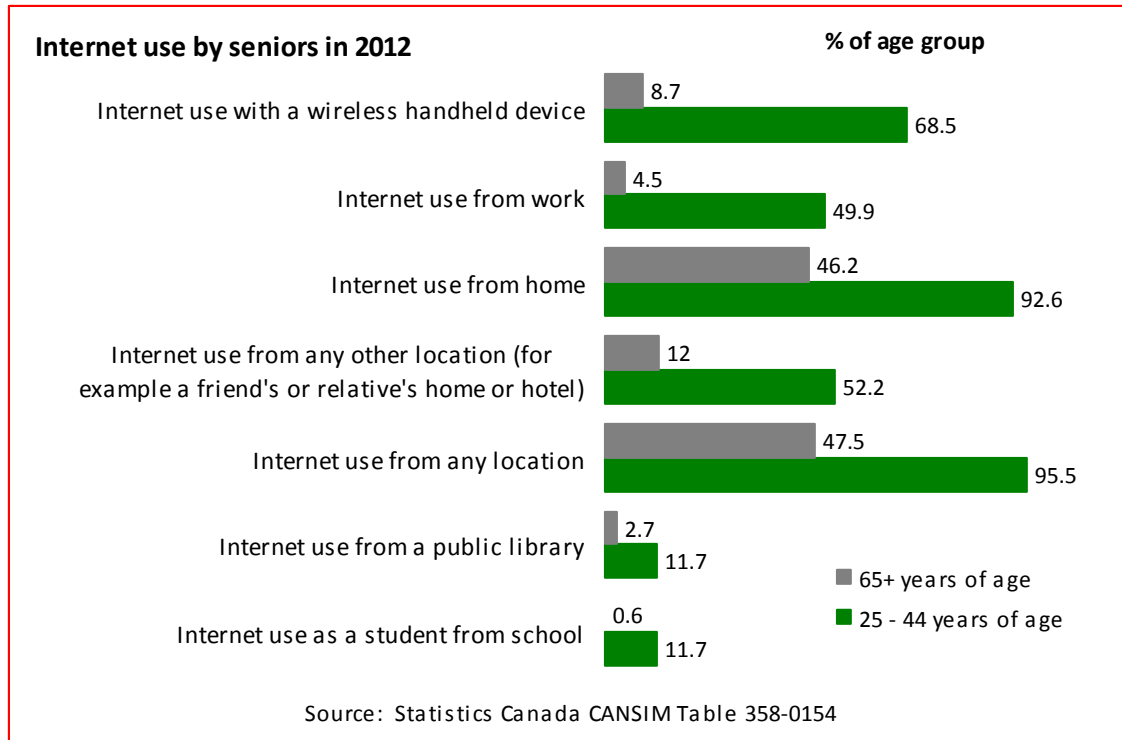
Figure 3: Percent of households with internet access at home, in 2012, by province and territory



46 Significant differences also exist among those who do have Internet access, particularly with respect to age and income.

47 For example, while 92.6% of people from 25 to 44 years of age have Internet access in their homes, just 46.2% of people over 65 years of age have Internet access in their homes.

Figure 4 Internet access by people aged 25 to 44 years of age, and people over 65 years of age, in 2012



- 48 Going forward the CRTC should include affordable, higher-speed broadband Internet access as a basic service obligation, to ensure that most, if not all, Canadians are able to participate in social and economic activities, and to interact with their governments.

1 b Important telecommunications services and their characteristics

Explain which telecommunications services are most important to support these needs and uses. What characteristics (e.g. capacity, mobility, high speed, and low latency) should these telecommunications services have?

- 49 In our view, the services that are most important to meet Canadian users' economic and social needs are: wireline and wireless telephones, and the internet. The services generally share similar characteristics, except that wireline telephone services need not be mobile, while wireless services must be mobile. Internet services should be high speed and low latency.
- 50 The services are of equal importance, and should provide users with similar, if not the same, quality of service. We note, however, that TSPs are financially motivated to migrate their subscribers to higher-profit, lower-cost services. Bell, for instance, advised in its 2014 Annual Report that

... Legacy circuit-based infrastructures are difficult and expensive to operate and maintain and very significant resources and efforts are required to perform life-cycle management and upgrades to maintain operational status of these legacy networks. As time passes, maintenance spares for certain critical network elements may cease to exist due to manufacturers' discontinuation of support and the unavailability of compatible spares from third parties. We continue to migrate voice and data traffic from our legacy circuit-based infrastructures to newer and more efficient IP- and packet-based infrastructures.

BCE Inc., 2014 Annual Report at 95.

- 51 The CRTC should therefore ensure that as TSPs shift their subscribers from one type of telecommunications infrastructure to another, subscribers at least obtain the same quality and reliability of service, as well as affordable rates.

1 c Barriers to meaningful participation

Identify and explain the barriers that limit or prevent Canadians from meaningfully participating in the digital economy (e.g. availability, quality, price, digital literacy, and concerns related to privacy and security). Identify which segments of the Canadian population are experiencing such barriers.

- 52 The key barriers that limit or prevent Canadians from participating in a meaningful way in the digital economy are the physical availability of telecommunications services, and the rates charged for those services.
- 53 In 2013 Statistics Canada estimated that 4.6 million people have low incomes. Data from its 2013 Residential Telephone Service Survey show that 125.5 thousand households did not have any telephone service.²² As shown by Table 4, 59,282 (47.3%) of the households without telephone service were in non-Census Metropolitan Areas:

Table 4: Households without telephone service in 2013

Households without an active cellphone, and without any other different telephone numbers, by province and CMA (December 2013)			
Province	Location	Households	% of total households
Non-CMA	Non-metropolitan areas	59,282	47.3%
NS	Halifax	415	0.3%
QB	Quebec	5,653	4.5%
	Montreal	15,052	12.0%
ON	Ottawa	3,050	2.4%
	Toronto	5,499	4.4%

²² No one in these households had an active cell phone, and there were no other telephone numbers being used in the households. Appendix 2 lists the questions set out in the *Residential Telephone Service Surveys* from 1996 to 2013.

Households without an active cellphone, and without any other different telephone numbers, by province and CMA (December 2013)

Province	Location	Households	% of total households
	Kitchener-Waterloo	898	0.7%
	Hamilton	3,741	3.0%
	St.Catharines-Niagara	-	0.0%
	London	1,804	1.4%
	Windsor	716	0.6%
MA	Winnipeg	2,892	2.3%
AB	Calgary	-	0.0%
	Edmonton	2,007	1.6%
BC	Vancouver	21,887	17.4%
	Victoria	2,562	2.0%
	Total	125,458	100.0%

- 54 Ensuring that rural areas in Canada enjoy the same level and quality of telecommunications service as those living in urban areas will not be solved by the competitive market, because it is easier to reach millions of potential subscribers in a few large urban centres, than to reach fewer subscribers spread out in a much larger rural territory. The result is that rural household use of mobile and landline telephones is somewhat different: for example, only 12% of Canadian households relied solely on landline telephones – but just over half of those households were in rural communities (52%). The majority of households that relied solely on cell phone service households, on the other hand, were in urban centres (65%). Figures for individual urban centres are shown in Appendix 3.

Table 5: Types of telephone services, by rural and urban households, in December 2013

Telephone services used by rural and urban households in December 2013						
Types of telephone service	Rural		Urban		Total	
	Households	%	Households	%	Households	%
Landline only	874,964	52%	813,565	48%	1,688,529	12.1%
Cell only	2,188,419	35%	4,083,324	65%	6,271,743	45.0%
Cable or VoIP	604	100%	0	0%	604	0.0%
Landline and cell	2,578,389	43%	3,368,245	57%	5,946,634	42.6%
Cell and cable or VoIP	4,187	35%	7,689	65%	11,876	0.1%
No landline, cell, cable or VoIP	4,751	20%	18,510	80%	23,261	0.2%
Landline, cell, cable AND VoIP	429	23%	1,449	77%	1,878	0.0%
Total	5,651,743	41%	8292782	59%	13,944,525	100.0%
As % of all households	40.5%		59.5%			100.0%

Statistics Canada, *Residential Telephone Service Survey, 2013*, variables Q1, Q8a, Q8b, 8c and CMA1 (weighted by WTHP)

- 55 Table 6 shows that almost half of the rural and urban households alike had both landlines and cellphones, but the proportion of households that relied on landlines only was higher in rural areas (15.5%) than in urban areas (9.8%).

Table 6: Rural and urban households' types of telephone services, in December 2013

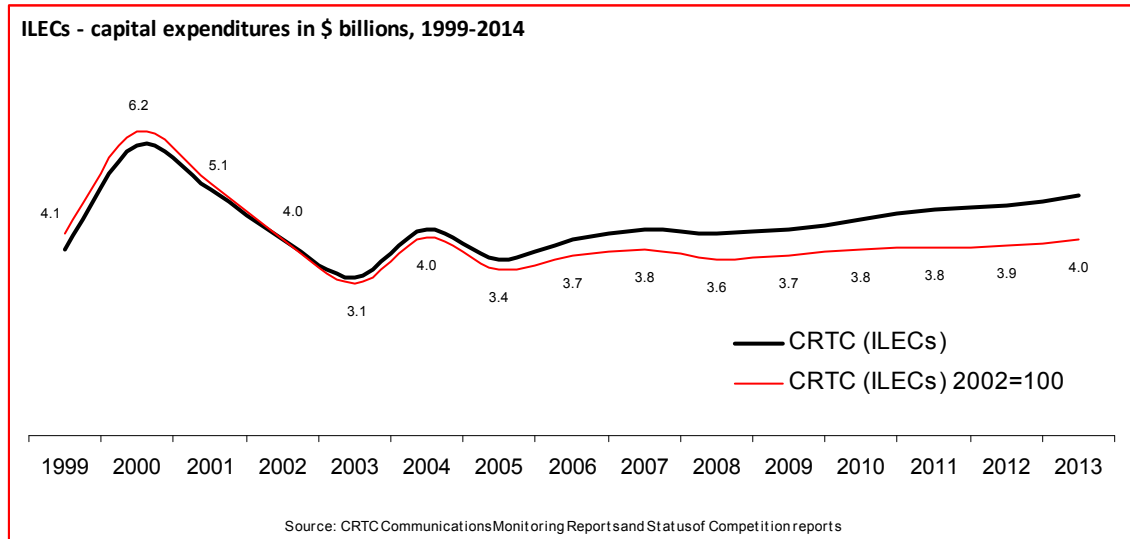
Telephone services used by rural and urban households in December 2013						
Types of telephone service	Rural		Urban		Total	
	Households	%	Households	%	Households	%
Landline only	874,964	15.5%	813,565	9.8%	1,688,529	12.1%
Cell only	2,188,419	38.7%	4,083,324	49.2%	6,271,743	45.0%
Cable or VoIP	604	0.0%	0	0.0%	604	0.0%
Landline and cell	2,578,389	45.6%	3,368,245	40.6%	5,946,634	42.6%
Cell and cable or VoIP	4,187	0.1%	7,689	0.1%	11876	0.1%
No landline, cell, cable or VoIP	4,751	0.1%	18,510	0.2%	23261	0.2%
Landline, cell, cable AND VoIP	429	0.0%	1,449	0.0%	1878	0.0%
Total	5,651,743	100.0%	8,292,782	100.0%	13,944,525	100.0%

Statistics Canada, *Residential Telephone Service Survey, 2013*, variables Q1, Q8a, Q8b, 8c and CMA1 (weighted by WTHP)

- 56 Rural households' reasons for relying somewhat more heavily on landlines than urban households are unknown, because the most recent Statistics Canada residential telephone service surveys do not ask respondents why they do not have specific types of services.
- 57 Satellite-delivered Internet service may not suffice to solve the problem of access. Commissioner Molnar's Satellite Inquiry found "that approximately 1.2 million Canadian households do not have access to broadband Internet service at the Commission's target speeds (5 Mbps download and 1 Mbps upload). Roughly 18,000 of those households are located in satellite-dependent communities."²³ In other words, up to a million or more households may not have access at all to broadband Internet at the CRTC's target speeds.
- 58 Part of the problem may be that the companies most able to extend telecommunications service to underserved populations in difficult-to-reach areas, due to their size, have reduced their capital expenditures over the last fifteen years. Canadian ILECs spent \$6.2 billion on plant and equipment in 2000, and \$4 billion in 2013 (see Figure 5).

²³ *Satellite Inquiry Report* (Ottawa, 2014),
<http://www.crtc.gc.ca/eng/publications/reports/rp150409/rp150409.htm>.

Figure 5: Capital expenditures by Incumbent Local Exchange Carriers, 1999 -2014



59 Even when households do have access to telecommunications services such as the Internet, rural households may face interconnected barriers of price and quality. For example, farmers in Ontario told the Ontario Federation of Agriculture at the beginning of July 2015 that even though they live near larger urban centres, their internet service is unreliable and/or slow – but expensive:

<p>we have terrible internet, and with the Bell Turbo Hub it is very expensive. I thought the government was looking into funding high speed internet for the Elgin-Middlesex-London area</p>	<p>John and Teresa Lunn (July 3, 2015 at 2:53 PM)</p>
<p>This is desperately needed. We live on a farm 10 minutes outside of Essex, ON and have to rely on satellite internet which is unreliable and very expensive. We may as well live in Tibet. The winds are high out here and satellite isn't a viable solution. We need reliable service! If there are petitions that need to be signed, just let me know where.</p>	<p>Kerry McGrail (July 3, 2015 at 3:05 PM)</p>
<p>On our dairy farm we work with 4 Lely Robots. For computer program repairs and updates we need a fast internet connection 24 -7- year round. Just North of Alliston we had trouble when all of a sudden the Wimex stopped. The internet in our area is very slow .Thank you for helping us making it better.</p>	<p>Toby Broekhuizen (July 3, 2015 at 3:27 PM)</p>
<p>coincidentally as I was reading this article I had to unplug my internet box so it could reset itself. We also pay very high rates for our internet time. We can't get unlimited in our rural area because the phone lines are too old and not slated for upgrading for several years.</p>	<p>Glenda Hamilton (July 6, 2015 at 12:05 AM)</p>
<p>Yes, the internet here in Stoney Point is not very reliable either, cannot get online half the time when needed. Much more needs to be done so farmers</p>	<p>Gagnon's (July 7, 2015)</p>

can get online at any time. As a lot of paper work. And such are done on line now they have to get with the program we are all with u on this. Need to get government on Board here and make it. Healer **it is far too expensive**. Thank you.

at 9:17 AM)

- 60 If Canada expects its farmers to expand into and compete in global markets to sell their products, they must have better Internet service, at more affordable prices, to connect more quickly with potential and actual customers.
- 61 Even when telephone and/or Internet service is available in urban centres, it may be out of reach for many Canadian households. In 2013 Statistics Canada estimated that 4.6 million people have low incomes.

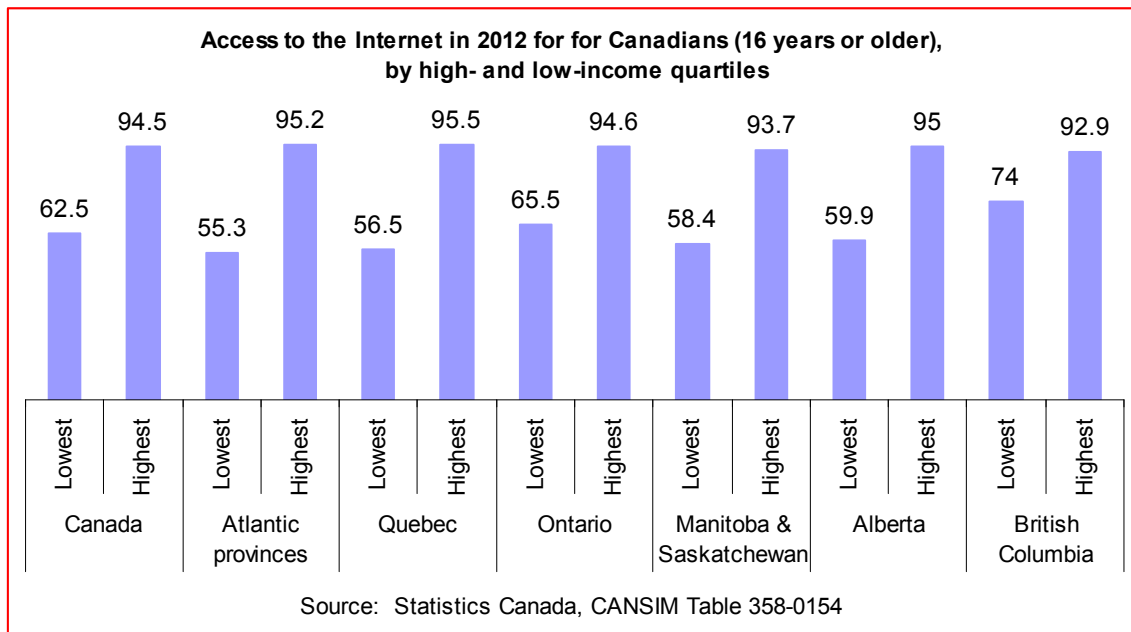
**Canadian Income Survey (CIS), low income statistics by economic family type,
Canada, provinces and selected census metropolitan areas (CMAs):
Thousands of persons in low income**

	2012	2013	2013 – as % of population
Canada	4,682	4,649	13.5%
Atlantic provinces	350	333	14.5%
Newfoundland and Labrador	73	68	13.4%
Prince Edward Island	19	23	16.1%
Nova Scotia	140	134	14.6%
New Brunswick	118	109	15.0%
Quebec	1,181	1,117	14.0%
Québec	86	47	5.9%
Montréal	646	640	16.2%
Ontario	1,950	1,938	14.4%
Ottawa-Gatineau	172	166	11.8%
Toronto	1,007	936	15.5%
Prairie provinces	558	607	9.8%
Manitoba	185	177	14.8%
Winnipeg	113	113	14.5%
Saskatchewan	128	131	12.7%
Alberta	246	300	7.6%
Calgary, Alberta	92	102	7.5%
Edmonton, Alberta	68	101	8.0%
British Columbia	642	654	14.4%
Vancouver, British Columbia	319	362	14.6%

Source: Statistics Canada, CANSIM Table 206-0042

62 Major gaps exist in Canadians’ ability to access the Internet, based on income. Statistics Canada found that almost all Canadians in the highest income quartile (top 25% of the population in terms of income) had access to the Internet. Access to the Internet for those in the lowest quartile was significantly lower, however – below 60% in the Atlantic provinces, Quebec, Manitoba and Saskatchewan (Figure 6).

Figure 6: Access to the Internet for high and low



63 Disparities such as these are why FRPC supports the idea of establishing the conceptual equivalent of unlimited local landline calling, for the internet. A ‘lifeline’ service for the Internet should be made available to ensure that everyone in Canada can be connected, regardless of their income.

1 d Support for meaningful participation

Identify and explain any enablers that allow Canadians to meaningfully participate in the digital economy (e.g. connected devices and applications).

64 The main enablers to allow all Canadians to participate meaningfully in the digital economy are: the complete availability of reliable wireline and wireless telephone service, access to reliable high-speed internet, and the pricing of such services at affordable rates.

65 Less obvious, perhaps, but just as vital are facts: too few reliable and meaningful data are being published about the state of Canadian telecommunications. FRPC set out some of its concerns about the lack of data regarding payphones in its submission to the

CRTC in response to TNoC 2015-66 (30 March 2015), and as noted above (para. 30), has similar concerns in this proceeding.

1 e Telecommunications needs in 2025

As Canada's digital economy continues to grow and evolve during the next 5 to 10 years, which telecommunications services are Canadians expected to need to participate meaningfully? Specify how your responses to parts a) through d) above would change based on your answer.

66 FRPC anticipates that Canadians will need telecommunications-based devices that provide complete simultaneous access to the Internet, for multiple members of households who are all using high-bandwidth applications. The 5 megabits per second target should be revised, to take these applications and needs into account: we note that the Internet packages currently being advertised by ISPs such as Rogers exceed 30 Mbps for cable Internet.

67 Over the next decade Canadians we expect that Canadians will continue to rely on the core telecommunications and broadcasting services now available to them. In other words, Canada's telecommunications system must meet economic as well as social objectives (such as the carriage of OTA television). Broadband Internet will also provide new and additional opportunities for political and community participation, education, e-health, and improved access to Canadian audio-visual content.

2 Broadband target speeds

The Commission's current target speeds for broadband Internet access service are a minimum of 5 Mbps download and 1 Mbps upload, based on uses that consumers should reasonably expect to make of the Internet. Are these target speeds sufficient to meet the minimum needs of Canadians today? If not, what should the new targets be and what time frame would be reasonable to achieve these new targets?

68 No, the current target speeds are inadequate to meet Canadians' minimum needs.

69 The current and future needs that we mentioned in response to question 1(e), above, will require very high bandwidth into the home, and on wireless – 100 Mbps.

70 This speed only seems high when we think we know all the things people will use it for: Canada must create an environment where high bandwidth is ubiquitous for all Canadians, spurring innovation in all the areas identified, in telecommunications, and particularly with respect to the availability of different types of services. In June 2015, however, Bell announced that it would begin offering gigabit service in Toronto this

summer, and later in the year in other cities in Quebec, Ontario and Atlantic Canada.²⁴ Bell's Vice-President of Marketing for the company's residential services was quoted as saying that "Increasingly we see that consumers' lives revolve around the Internet, and more so in 2015 than ever,".

- 71 We believe that a five-year window from the date of the CRTC's public hearing in 2016 offers a reasonable period for telecommunications service providers to implement this goal.

III Questions about CRTC's role in basic telecommunications services' accessibility

3 Basic telecommunications services for meaningful participation in digital economy

Which services should be considered by the Commission as basic telecommunications services necessary for Canadians to be able to meaningfully participate in the digital economy? Explain why.

- 72 The three services that are necessary for Canadians to participate in a meaningful way in today's economy are: wireline and wireless telephone services, and internet service. Each type of service plays a role in health care, education, government programs and banking – the services identified as 'fundamental' by the Inquiry Officer in her October 2014 Inquiry Report (para. 2).
- 73 Wireline service remains necessary because a majority of Canada's population continues to subscribe to plain old telephone service, wherever they live, and even if they have an active cell phone subscription. In December 2013, 77.8% (10.8 million) of Canada's households had non-cell telephone numbers (see Table 7 and Appendix 4).

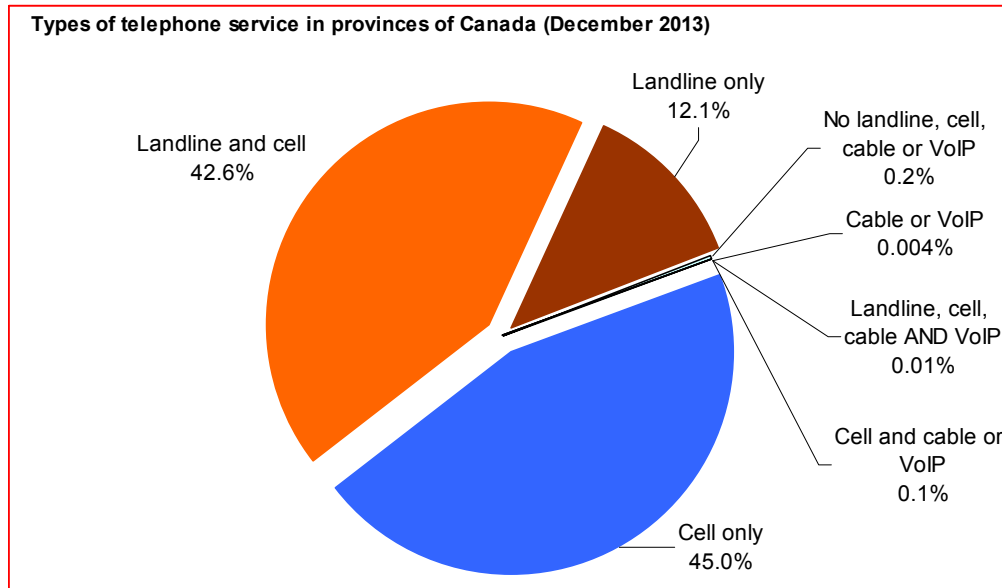
Table 7: Percentage of households with cell and non-cell telephone numbers (December 2013)

Number of telephone numbers in household, excluding cell phones	Active cell phone in household				Total
	Yes	No	Don't know	Refusal	
No other types of telephone service (no other numbers)	20.8%	0.9%	0.0%	0.0%	21.7%
One or more other tel. #s	61.4%	16.1%	0.2%	0.1%	77.8%
Don't know	0.0%	0.0%	0.0%	0.0%	0.1%
Refusal	0.1%	0.0%	0.0%	0.0%	0.1%
Not stated	0.2%	0.1%	0.0%	0.0%	0.3%
Total	82.6%	17.1%	0.2%	0.1%	100.0%

²⁴ Anja Karadeglija, "For telecoms, it's all about the Internet" *The Wire Report Blog* (26 June 2015).

- 74 As Figure 1 shows, cell phones and landlines are the types of phone used by almost all (99%) households. While the largest group of households had just cellphones (45%), over half (53.7%) had cellphones and landlines (42.6%), or just landlines (12.1%). Fewer than one percent of households used other telephone services like cable and VoIP.

Figure 7: Types of telephone service used by households in December 2013



- 75 Wireless service has become necessary because a majority of Canada's families subscribe to wireless telephone service, and those with wireless telephones rely on these devices on a daily basis. The CRTC confirmed two just months ago that

Canadians are increasingly relying on mobile wireless services as their primary means of communication. These services constitute the largest component of Canadians' spending on telecommunications services. As stated earlier, mobile wireless services make up nearly half of all telecommunications revenues, which is an indication of their importance to the Canadian economy. Competition in the wireless industry benefits society and the economy by providing innovative communications services at reasonable prices.

Regulatory framework for wholesale mobile wireless services, Telecom Regulatory Policy CRTC 2015-177, (Ottawa, 5 May 2015)
<http://www.crtc.gc.ca/eng/archive/2015/2015-177.htm>, at ¶14 (footnote omitted)

- 76 Internet service is necessary because it enables Canadians' to access, receive and share information on a daily basis.

3 a Basic services and technology

Explain whether the underlying technology (e.g. cable, digital subscriber line, fibre, fixed wireless, mobile wireless, and satellite technology) should be a factor

in defining whether a telecommunications service should be considered a basic service.

- 77 At this time FRPC does not consider that the technology that provides a telecommunications service should be a factor in determining whether the service itself is basic or discretionary.

3 b Terms and conditions of basic service

Identify, with supporting rationale, the terms, conditions, and service characteristics under which basic telecommunications services should be provided. Should any obligations be placed on the provider(s) of these services? If so, what obligations and on which service provider(s)?

- 78 FRPC may comment on this point after reviewing other parties' submissions.

3 c Determining the price of basic service

What should be the prices for basic telecommunications services and how should these prices be determined? Provide rationale to support your answer.

- 79 While FRPC generally reserves the right to comment on other parties' submissions on this point, we believe that part of any answer to this question will require the annual collection of information about the affordability of basic telecommunications services – which should include payphones and high-quality high-speed Internet service.
- 80 The CRTC required telecommunications companies to report on the concept of affordability from 1996 to 2007. The companies worked with Statistics Canada to design and implement regular surveys of Canadian households and their telecommunications services:

Statistics Canada was approached by Stentor Resource Centre Inc. to conduct a quarterly survey in order to monitor the phone penetration rates across Canada. Currently, Bell Canada and other companies, through Stentor Resource Centre Inc, are negotiating local service pricing options for phone rates with the Canadian Radio-Television and Telecommunication Commission. Penetration rates are the most reliable indicator of affordability as there is no price range that can be identified as affordable or not affordable. As a result, the importance of monitoring any changes in phone penetration rates and analysing the reasons for non-subscribers is necessary to properly guide regulators in decisions about rate increases, decreases or subsidies. Concern has been expressed that the current mechanism for monitoring penetration

rates is not adequate in providing timely results to indicate whether Canadian penetration rates fall as a result of increases in local rates.²⁵

81 While Statistics Canada's documentation about the surveys states that penetration rates are the most reliable way to measure affordability, the surveys from 1996 to 2007 also asked households in the ten provinces why they had cancelled or did not have telephone service and about their household income. From 1997 to 2007 households were also asked whether their total annual household income before taxes and deductions in the previous year was above or below the low-income cutoff (LICO).²⁶ The residential telephone service surveys changed over time, and by 2010 questions about reasons for telephone service cancellation had been dropped. The questions in the fourteen surveys are summarized in Appendix 2.

82 The latest data for which household income information is available are from 2007, and show that problems with telecommunications affordability are not limited to low-income households. In 2007 225,827 households cancelled their landline service because they could not afford it:²⁷ for just over half (127,281, or 56.4%) of these households their previous year's income was below Statistics Canada's low-income cut-off point; for the remaining 98,546 households the previous year's income was above the low-income cut-off.



83 The 2007 survey data also show that income levels account for different households' subscription to different types of telephone services. Combining several variables in the 2007 Statistics Canada survey enables us to determine which households have which types of service:

- Landline only
- Cell only
- Cable or VoIP only (this information was collected as a single variable)
- Landline and cell, but not cable or VoIP

²⁵ Statistics Canada, Special Surveys Division, *Residential Telephone Service Survey: Microdata User Guide*, (November 1996) at 3 ("2.0 Background).

²⁶ Statistics Canada has conducted other residential telephone service surveys since then, in 2010 and 2013, but these did not ask questions about income.

²⁷ Statistics Canada asked households that did not have landline service, why they did not have service. 212,891 households said they could not afford landline service (answers to RTS_Q07), and another 24,837 households said they had cancelled the service because they could not afford (answers to RTS_Q08). households did not have landline service.

- Landline and cable or VoIP, but not cell, and
- Cell and cable or VoIP, but not landline.

84 We then compared these results with low-income cut-off information. Table 8 shows that in 2007 households with below-LICO income tended to have landline service or cellphone service only (41.2% + 10.6% = 51.8%); households with above-LICO income tended to have both landline and cell service (65.8%).

Table 8: Households' telephone service in December 2007, compared with Statistics Canada's low-income cutoff

Households' telephone service in December 2007 % of households below or above 2006 LICO				
Telephone service in household in December 2007	Less than 2006 LICO		More than 2006 LICO	
	Households	%	Households	%
Landline only	985,269	41.2%	1,637,062	19.7%
Cell only	252,221	10.6%	510,533	6.2%
Cable or VoIP only	47,446	2.0%	106,330	1.3%
Landline and cell	885,139	37.0%	5,453,112	65.8%
Landline and cable or VoIP	54,344	2.3%	103,270	1.2%
Cell and cable or VoIP	82,214	3.4%	457,812	5.5%
No landline, cell, cable or VoIP	82,836	3.5%	24,945	0.3%
Total with known service	2,389,469	100.0%	8,293,064	100.0%

Statistics Canada, *Residential Telephone Service Survey, 2007*, variables Q1, Q3, Q6 and Q10 (weighted by WTHP)

- 85 Unfortunately, Statistics Canada no longer publishes current data about telecommunications affordability, leaving no reliable foundation for the Commission to use when making decisions about the regulation of affordable telecommunications services. FRPC respectfully submits that the CRTC should resume data collection on telecommunications affordability, whether on its own in conjunction with Statistics Canada, or by requiring large telecommunications companies to fund such research.
- 86 The CRTC should then solicit public comment about the design of surveys about affordability, to ensure that the data collected measure this complex concept properly. For example, rather than focusing solely on respondents who say they do not have telecommunications service because they cannot afford it, an affordability survey could also determine whether respondents must sacrifice other essential goods and services to have or to keep their telecommunications services.

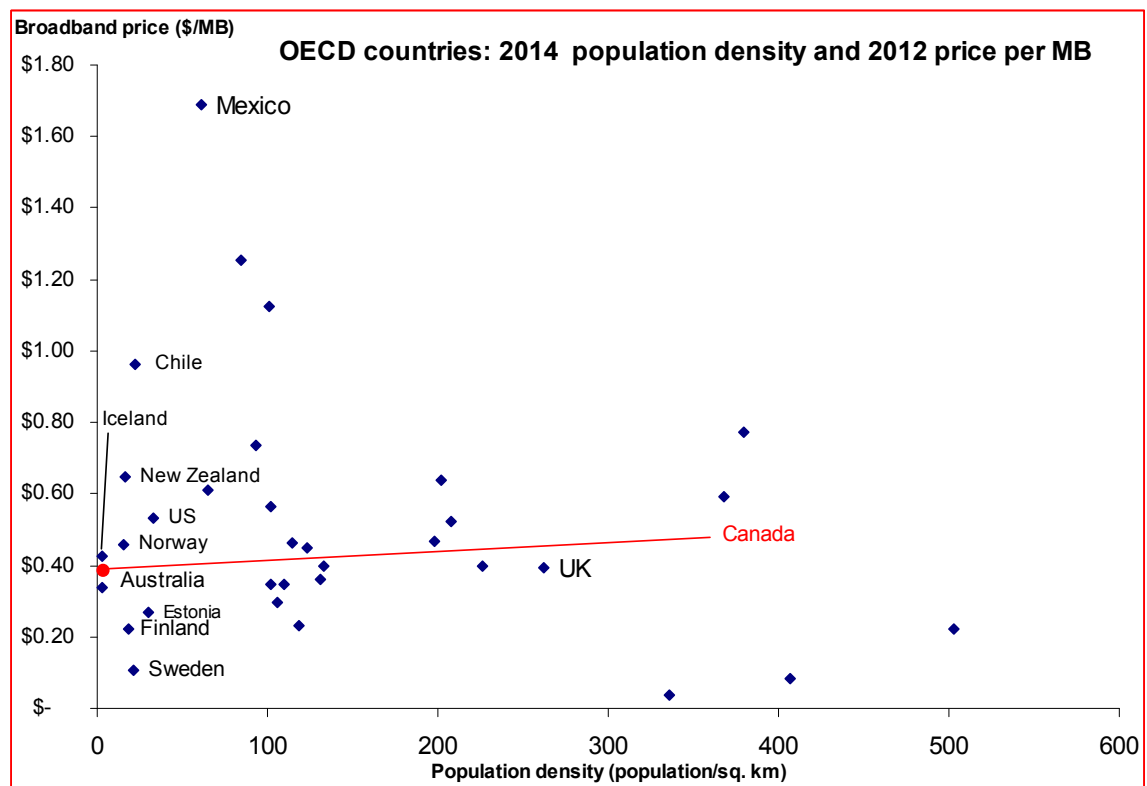
FRPC Recommendation 4: The CRTC should resume the collection of data about the affordability of telephone service in Canada.

- 87 We should also note that solutions to the issue of pricing will have to take Canada's somewhat unique characteristics into account: it is a very large country, with a relatively small population that is unevenly distributed. Solutions that work well for

countries that are smaller and have higher population densities are unlikely to work well in Canada. As a result, more may be required in terms of either regulation, or government investment, or both, if the objectives of the *Telecommunications Act* are to be met.

- 88 Our view is supported by evidence. We compared the 2012 price of OECD countries’ broadband service (per MB) with their population density in 2014. As shown by Figure 8, Canada falls between the two countries that have similarly low population densities: Iceland and Australia.

Figure 8: OECD countries' population density and price per MB



Sources: OECD and Teligen, OECD Communications Outlook, 2013 http://www.oecd-ilibrary.org/science-and-technology/oecd-communications-outlook-2013_comms_outlook-2013-en, Figure 7.17. Broadband subscription prices ranges per megabit per second of advertised speed, with line charges, Sept. 2012, USD PPP; population density data from https://en.wikipedia.org/wiki/List_of_sovereign_states_and_dependent_territories_by_population_density.

- 89 In our view, ensuring complete access to affordable high-speed Internet service is beyond the capacity of the hypothetical competitive market due to Canada’s special circumstances. The incentives that motivate private sector companies to expand service in countries with large populations concentrated in small areas, do not exist in Canada

because so few people live in a very large country. It is more likely than not that the CRTC will have to use its regulatory powers to achieve this objective.

- 90 Regulatory measures are required because encouragement alone tends not to achieve the CRTC's goals. In 1996, for example, the CRTC encouraged telephone companies to extend reliable telephone service to remote areas in Manitoba.²⁸
- 91 Almost twenty years after the CRTC encouraged telephone companies to extend reliable, and we assume affordable, telephone service, 3.7% of the households in Manitoba had neither landline nor cellphone service:

Manitoba	Have an active cell	No active cell	Total
Have a landline	240,373	65,254	305,627
Do not have a landline	58,243	14,085*	72,328
Total	298,616	79,3309	377,955

Source: Statistics Canada rtss pumf december 2013, excludes refusals, don't know
* 3.7% of total households

- 92 Encouragement alone will not achieve the CRTC's goals, and this is why Parliament gave the CRTC the jurisdiction and authority to do more.

4 Ensuring access to basic service

Can market forces and government funding be relied on to ensure that all Canadians have access to basic telecommunications services? What are the roles of the private sector and the various levels of government (federal, provincial, territorial, and municipal) in ensuring that investment in telecommunications infrastructure results in the availability of modern telecommunications services to all Canadians?

- 93 Market forces cannot be relied on to ensure that the 35 million people living in Canada have access to basic telecommunications services because, as the CRTC has previously said, market forces only operate properly when competition is unlimited.²⁹ Locations where competition is generally limited lack the market forces required to discipline rate-setting and other behaviors.
- 94 Governments' role in ensuring access to basic telecommunications services is threefold: to determine where gaps exist, to take action to close the gaps and to report regularly and frequently on the degree to which gaps have or have not been closed.

²⁸ *Local Service Pricing Options*, Telecom Decision CRTC 96-10 (Ottawa, 15 November 1996), <http://www.crtc.gc.ca/eng/archive/1996/dt96-10.htm>.

²⁹ *Approval mechanisms for retail and CLEC tariffs*, Regulatory policy & Telecom Decision CRTC 2008-74, (Ottawa, 21 August 2008), <http://www.crtc.gc.ca/eng/archive/2008/dt2008-74.htm>, at ¶19.

95 In planning for the next decade of telecommunications services the CRTC should also bear in mind that for the millennial generation (15 to 35 years of age), wireless service IS basic service – while also protecting the needs of older generations who rely on wireline services. Affordable basic telecommunications services for will strengthen the economy, while serving the interests of Canadian society.

5 CRTC action to ensure the availability of basic service for all Canadians

What should be the Commission's role in ensuring the availability of basic telecommunications services to all Canadians? What action, if any, should the Commission take where Canadians do not have access to telecommunications services that are considered to be basic services?

96 The CRTC must ensure the availability of basic service for all people living in Canada through its policies and the rates in tariffs it approves, and by identifying and reporting gaps in service on a quarterly basis (i.e., every three months).

97 Setting rates that ensure a life-line level of service will permit all Canadians to participate in Canadian society.³⁰

98 Publishing more useful data, more regularly, will make progress towards achieving Parliament's objectives for telecommunications more transparent, and improve accountability.

99 In terms of action when the *Telecommunications Act's* objectives are not being met, FRPC notes that Parliament has given the CRTC clear authority and ample power to enforce its requirements. The courts have upheld the CRTC's authority to determine the level of service to be provided by carriers such as Bell.³¹ In broadcasting, moreover, the CRTC regularly advises the companies it regulates (some of which are also ILECs) about its approach to enforcement in cases of regulatory non-compliance: it should do the same for telecommunications companies.

100 The CRTC should issue a service-availability compliance policy stating its intention to decline to approve tariff applications submitted by telecommunications service providers that have failed to achieve specified service availability levels set by the CRTC

³⁰ We note in this context the 2011 economic study by Daniel A. Ackerberg, Michael H. Riordan, Gregory L. Rosston and Bradley S. Wimmer, "Low-Income Demand for Local Telephone Service: Effects of Lifeline and Linkup", <http://www.columbia.edu/~mhr21/papers/ARRW.pdf>. The authors' research found that lifeline-style telephone service packages in the United States were effective in increasing levels of telephone subscription in lower-income groups.

³¹ *Penny v. Bell Canada*, 2010 ONSC 280.

by required dates, based on its authority under section 24 of the Telecommunications Act.³²

FRPC Recommendation 5 The CRTC should develop, seek comments on and implement a telecommunications compliance policy that describes the actions the Commission will take when Parliament's objectives for telecommunications users' social and economic needs are not being met.

6 CRTC action when its target speeds are not met

In Telecom Regulatory Policy 2011-291, the Commission stated that it would closely monitor developments in the industry regarding the achievement of its broadband Internet target speeds to determine whether regulatory intervention may be needed. What action, if any, should the Commission take in cases where its target speeds will not be achieved by the end of 2015?

101 The first step that the CRTC should take is to publish results from its monitoring of target speeds, within 30 days' of receiving information from members of the industry. Greater transparency will promote increased interest in accountability and compliance.

102 The CRTC should also seek comments on, and issue a telecommunications compliance policy. The policy could ask for mechanisms to sanction industry members that do not meet specified broadband internet target speeds set by the CRTC by required dates, based on its authority under section 24 of the Telecommunications Act.³³ For example, the CRTC could decline to approve tariff applications submitted by telecommunications service providers that have failed to achieve specific targets by specific dates – as the CRTC has similarly done in the many cases of radio stations who failed to meet specific levels of Canadian content, French-language montages or other regulatory minima.

7 a Capital infrastructure mechanism for Northwestel's territory

In Telecom Regulatory Policy [2013-711](#), the Commission stated its intention to establish a mechanism, as required, in Northwestel's operating territory to support the provision of modern telecommunications services. Such a mechanism would fund capital infrastructure investment in transport facilities (e.g. fibre, microwave, and satellite), as well as the cost of maintaining and enhancing these facilities. The Commission considered that this mechanism should complement,

³² S. 24: "The offering and provision of any telecommunications service by a Canadian carrier are subject to any conditions imposed by; the Commission or included in a tariff approved by the Commission."

³³ S. 24: "The offering and provision of any telecommunications service by a Canadian carrier are subject to any conditions imposed by; the Commission or included in a tariff approved by the Commission."

and not replace, other investments from the private sector and governments, including public-private partnerships.

Explain, with supporting rationale, whether there is a need for the Commission to establish such a mechanism in Northwestel's operating territory. As well, explain whether there is a need for such a mechanism in other regions of Canada.

- 103 FRPC may address this point in replying to other parties' comments.
- 104 That said, we have some concerns with the idea that any regulatory mechanism can easily be established to complement, and not simply replace, private sector and public-private sector initiatives. In our view, setting a complementarity precondition will delay progress in achieving the mechanism's objective – as the mechanism's managers would need to monitor the plans of other parties before proceeding with their own. Requiring a new mechanism to monitor other parties' plans on an ongoing basis will delay, if not stymie, progress. It will also waste resources that are better put into actually building critically needed telecommunications infrastructure.
- 105 We also note that setting a complementarity precondition implies that private and private-public initiatives are simply waiting in the wings to launch. Yet the historical evidence shows the reverse: these parties do not want or are unable to proceed.
- 106 FRPC therefore opposes the idea that people living in underserved areas should have to wait for unidentified and possibly hypothetical new capital infrastructure plans by the private sector or a public-private partnership.

FRPC Recommendation 6 The CRTC should not make complementarity with other private or public-private initiatives a pre-condition for a new capital infrastructure mechanisms.

7 b Impact of a capital infrastructure mechanism for Northwestel

What impact would the establishment of such a mechanism have on private sector investment and government programs to fund the provision of modern telecommunications services?

- 107 The establishment of a capital infrastructure mechanism is unlikely to have any immediate impact on private sector investment in modern telecommunications services in areas that are now underserved and require such services. The mechanism would only have an impact if such investments were being made by the private sector for the same purpose – and so far, they are not.
- 108 In the medium to longer term, however, a capital infrastructure mechanism is likely to stimulate additional private sector investment – in the social and economic sectors of

regions that rely on telecommunications infrastructure, but do not now have access to high-quality, modern and reliable infrastructure at affordable rates.

- 109 As for public-sector initiatives, a capital infrastructure mechanism could replace tax-dollar funded government programs, allowing those resources to be allocated elsewhere.

IV Questions about regulatory measures for basic telecommunications services

8 Changes to obligation to serve and basic service obligation?

What changes, if any, should be made to the obligation to serve and the basic service objective?

- 110 The CRTC should include affordable and reliable payphone and high-speed telecommunications services in rural and urban areas as part of the basic service objective.
- 111 The CRTC should not discontinue basic service obligations for landline services, as long as the majority of Canada's population continues to use, if not rely on, these services.

9 Define broadband and other services as basic service

Should broadband Internet service be defined as a basic telecommunications service? What other services, if any, should be defined as basic telecommunications services?

- 112 Yes – affordable and reliable broadband Internet service should be defined as a basic telecommunications service in Canada.
- 113 We note that the government of the United Kingdom announced this past March that broadband would be made a basic legal right.³⁴ The proposals would ensure broadband speeds of at least 5 megabits per second, and include plans for a minimum broadband speed of 100 megabits per second across the nation.³⁵ Research there purports to suggest that 10 megabits per second would be optimum, because the growing

³⁴ Juliette Garside, "Broadband to be basic legal right, says George Osborne" *The Guardian* (18 March 2015), online: <http://www.theguardian.com/technology/2015/mar/18/broadband-to-be-basic-legal-right-says-george-osborne>.

³⁵ *Ibid.*

availability of devices connected to the internet within households means that two or more people are using high bandwidth services at the same time.³⁶

114 We therefore suggest that the basic service obligation include 100 Mbps to the home by 2021.

115 Basic telecommunications should also include local payphones and 911 emergency services, which should be available from coast to coast to coast.

116 Local payphones must be part of the basic obligation to serve because they ensure access to the telecommunications system for people who

- do not have any telecommunications services
- do not have mobile telecommunications service
- cannot use their wireline or wireless services due to emergencies, or who
- are visiting Canada, its provinces or its territories and do not otherwise have access to Canadian wireline or wireless telecommunications service.

117 Ensuring access for these users of telecommunications services meets their social needs, as well as their economic needs.

118 FRPC proposes that the CRTC hold a public proceeding and establish a policy for payphones to ensure they are available, at a minimum in these areas:

- Community centres – elementary, secondary and post-secondary educational institutions; municipal community facilities
- Transportation centres – airports, bus stations, train stations, docks
- Commercial centres – in and outside shopping centres (buildings that provide space for three or more stores), motels, hotels and restaurants (that seat more than 20 people), and in
- Public service centres – in and outside police stations, hospitals, community medical centres, legal aid clinics

FRPC Recommendation 7 The CRTC should develop a regulatory framework for payphones to ensure that this low-cost service is available and accessible to meet telecommunications users' social and economic needs

³⁶

ibid.

10 Changes to local service subsidy regime

What changes, if any, should be made to the existing local service subsidy regime? What resulting changes, if any, would be required to the existing regulatory frameworks (e.g. price cap regimes)?

119 FRPC reserves the right to comment on other parties' submissions on this point.

11 Changes to contribution collection mechanism

What changes, if any, should be made to the contribution collection mechanism? Your response should address, with supporting rationale, which TSPs should be required to contribute to the NCF, which revenues should be contribution-eligible and which revenues, if any, should be excluded from the calculation of contribution-eligible revenues.

120 FRPC reserves the right to comment on other parties' submissions on this point.

12 Subsidies for basic telecommunications services

Should some or all services that are considered to be basic telecommunications services be subsidized? Explain, with supporting details, which services should be subsidized and under what circumstances.

121 FRPC reserves the right to comment on other parties' submission on this point.

13 New funding mechanism for modern telecommunications services

If there is a need to establish a new funding mechanism to support the provision of modern telecommunications services, describe how this mechanism would operate. Your response should address the mechanism described in Telecom Regulatory Policy 2013-711 for transport services and/or any other mechanism necessary to support modern telecommunications services across Canada. Your response should also address, but not necessarily be limited to, the following questions:

13 a Types of infrastructure and/or services that should be funded

122 FRPC reserves the right to comment on other parties' submission on this point.

13 b Regions of Canada where funding should be provided

123 FRPC reserves the right to comment on other parties' submission on this point.

13 c Eligibility for funding mechanism

Which service providers should be eligible to receive funding, and how should eligibility for funding be determined (e.g. only one service provider per area, all service providers that meet certain conditions, wireless service providers, or service providers that win a competitive bidding process)?

124 FRPC reserves the right to comment on other parties' submission on this point.

13 d Amount of funding

How should the amount of funding be determined (e.g. based on costs to provide service or a competitive bidding process)?

125 FRPC reserves the right to comment on other parties' submission on this point.

13 e Distributing funding

What is the appropriate mechanism for distributing funding? For example, should this funding be (i) paid to the service provider based on revenues and costs, or (ii) awarded based on a competitive bidding process?

126 FRPC reserves the right to comment on other parties' submission on this point.

13 f Wholesale availability of funded infrastructure

Should any infrastructure that is funded be available on a wholesale basis and, if so, under what terms and conditions?

127 FRPC reserves the right to comment on other parties' submission on this point.

13 g Set retail rates for subsidized services

Should the Commission set a maximum retail rate for any telecommunications service that is subsidized?

128 Yes: the CRTC's establishment of maximum retail rates for subsidized telecommunications services will serve the public interest, provided the maximum rates are based on empirical evidence of affordability. This rate must be based on factors such as users' affordability, as well as the profit levels of telecommunications companies. In other words, the objective of publicly-funded subsidies should be to maximize penetration levels of telecommunications services, not to subsidize telecommunications companies' profits.

13 h Replace local wireline service subsidy

Should this mechanism replace the existing residential local wireline service subsidy? If so, explain how the existing subsidy should be eliminated, including details on any transition period. In addition, explain whether the small ILECs and/or Northwestel should be subject to any special considerations or modifications for this transition period.

129 FRPC reserves the right to comment on other parties' submission on this point.

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Appendix 1: Data used in figures

Figure 1: Profit margins over time

Cansim Table 180-0003 ^{1, 2, 21, 46, 48}
**Financial and taxation statistics for enterprises,
 by North American Industry Classification
 System (NAICS)**

annual (dollars unless otherwise noted)

Geography = Canada

Financial and taxation components North American Industry Classification System (NAICS)	Profit margin (percent)		
	Total all industries	Construction	Telecommunications
1999	7.8	3.2	13.2
2000	8.3	2.8	13.6
2001	7.2	3.3	8.5
2002	7	3.6	11.4
2003	7.5	3.4	15
2004	8.3	4.1	9
2005	9	4.7	16.6
2006	9.5	5.8	17.1
2007	9.6	6.2	18.2
2008	9.4	6.5	17.3
2009	7.7	5.7	18
2010	9.3	5.9	19.3
2011	9.9	6.1	19.9
2012	9.6	6.4	20.6
2013	9.9	6.2	19.1

Appendix 2: Residential Telephone Services Surveys

Statistics Canada makes the data collected in its *Residential Telephone Service Surveys* available to the public, along with the coding guides and survey questionnaires of the surveys.

FRPC obtained copies of each of the surveys, and analyzed cases in the data files using the weighting variables provided by Statistics Canada and SPSS ('Statistical Package for the Social Sciences'). The total results were then compared with Statistics Canada's own statistics, using total population by province. For example, the results from the 1996 SPSS analysis matched with the results published by Statistics Canada in its Codebook:

Statistics Canada's English-language Codebook for the Residential Telephone Services Survey, November 1996, Public Use Microdata File (page 1)				SPSS results with application of Statistics Canada's FINWT variable
Province of the selected respondent				
<i>Variable Name:</i> PROV1 <i>Position:</i> 1 <i>Length:</i> 2				
Code	Value	FREQ	WTD	
10	Newfoundland and Labrador	1,549	195,730	195730
11	Prince Edward Island	1,030	50,051	50051
12	Nova Scotia	2,809	360,901	360901
13	New Brunswick	2,609	286,813	286813
24	Quebec	8,537	3,023,135	3023135
35	Ontario	12,754	4,203,686	4203686
46	Manitoba	3,025	428,606	428606
47	Saskatchewan	2,613	390,777	390777
48	Alberta	3,088	1,048,666	1048666
59	British Columbia	3,826	1,494,849	1494849
Total		41,840	11,483,214	11483214

The concepts measured by the *Residential Telephone Service Surveys* changed significantly over time, as the following summary of the surveys' questions shows.

Variables used in Statistics Canada' Residential Telephone Service Surveys from 1996 to 2013

Variables	Year of survey													
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2010	2013
Area size (rural and four urban sizes)											✓	✓		
Province	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Census Metropolitan Area (or Non-CMA)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
How many different telephone numbers are there for your residence?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Does your household currently have land-line telephone service? Include land-line telephone service used for business.											✓	✓		
How many different telephone numbers does your household current have for land-line telephone service? Include land-line telephone service used for business.											✓	✓		
Is this number for a cellular phone?							✓	✓	✓	✓				
Do any members of your household currently have cellular telephone service? Exclude cordless phones.											✓	✓		
Does anyone in your household currently have an active cell phone? Please include cell phones used for business.													✓	✓
How many active cell phones do the members of your household have?													✓	✓
How many different telephone numbers does your household current have for cellular telephone service? Include cell phone service used for business.											✓	✓		
How many of these cellular numbers are primarily used for business?											✓	✓		
Are any of these cell phones used only for business purposes?													✓	✓
How many (cell phones are used only for business purposes)?													✓	✓
Excluding cell phones, is there a telephone service for your household? (Include phone numbers that are used for computer, fax, or business purposes).													✓	
Excluding cell phones, how many different phone numbers are there in your household?													✓	✓
Are any of these phone numbers used only for computer, fax or business purposes?													✓	✓
How many (phone numbers are used only for computer, fax or business purposes)?													✓	✓
Does your household currently have a cable telephone or VoIP service?											✓	✓		

Variables	Year of survey													2010	2013	
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007				
Excluding cell phones, what other types of telephone service do you have in your household? Is it?															√	√
... a regular landline phone service															√	√
... a phone service from a cable television service provider?															√	√
... voice over Internet protocol (VoIP) telephone service with a unique number?															√	√
Why don't you have a phone?	√	√	√	√	√	√	√	√	√	√	√					
Why don't you have land-line telephone service?															√	√
Why did you cancel it?	√	√	√	√	√	√	√	√	√	√	√	√				
What part of your telephone charges did you find difficult to afford ?	√	√	√	√	√	√	√	√	√	√	√					
What part of your land-line telephone bill charges did you find difficult to afford?															√	√
- the local basic monthly rate	√															
- the monthly charge		√	√	√												
- the monthly charge for your basic phone line which includes local calls					√	√	√	√	√	√	√	√				
- the security deposit		√	√	√	√	√	√	√	√	√	√	√				
- the installation charge	√	√	√	√	√	√	√	√	√	√	√	√				
- optional features and/or set charges		√	√	√	√	√	√	√	√	√	√	√				
- long distance charges		√	√	√	√	√	√	√	√	√	√	√				
- other usage charges		√	√	√	√	√	√	√	√	√	√	√				
- all the charges (including long distance)	√															
In the past 3 years, was there ever a time when your household was without land-line telephone service for a month or longer? By this we mean you had no working land-line telephone service coming into your home.															√	
Did anyone in the household have cellular phone service during this period (of a month or longer during the past 3 years when your household was without land-line telephone service)?															√	
If there were an emergency at home, would members of your household have easy access to a neighbours [sic] phone?			√	√	√	√	√	√	√	√	√					
If there were an emergency at home, would members of your household have easy access to a payphone near your residence?			√	√	√	√	√	√	√	√	√					
If there were an emergency at home, would members of your household have convenient access to a telephone near your			√	√	√	√	√	√	√	√	√					

Variables	Year of survey													
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2010	2013
residence, at another location not already mentioned?														
In 1995, what was your total annual household income before tax? Was it ... (< \$10K, \$10K-\$14.9K, > \$15K, Don't know, refused)	√													
In [year of survey], what was your total annual family income before taxes and deductions less or more than (\$ LICO [<i>low income cut off</i>])		√	√	√	√	√	√	√	√		√	√		
Size of area of residence (i.e., by centre's population size)	√	√	√	√	√	√	√	√	√	√				
Size of area of residence, with smaller populations					√	√	√	√	√					
Survey date variable								√	√		√	√	√	√

Appendix 3: Types of telephone services used in households, by urban centres and rural areas

CMA or non-CMA area, by Type of telephone service(s) in household

Type of Census metropolitan area		Type of telephone service							Total
		Landline only	Cell only	Cable or VoIP	Landline and cell	Cell and cable or VoIP	No landline, cell, cable or VoIP	Landline, cell, cable AND VoIP	
Non-CMA	Households	874964	2188419	604	2578389	4187	4751	429	5651743
	% of area	15.5%	38.7%	0.0%	45.6%	0.1%	0.1%	0.0%	100.0%
Halifax	Households	20018	85464	0	76173	0	0	0	181655
	% of area	11.0%	47.0%	0.0%	41.9%	0.0%	0.0%	0.0%	100.0%
Quebec	Households	35069	284622	0	68643	0	0	0	388334
	% of area	9.0%	73.3%	0.0%	17.7%	0.0%	0.0%	0.0%	100.0%
Montreal	Households	201045	994364	0	491712	4792	6389	0	1698302
	% of area	11.8%	58.6%	0.0%	29.0%	0.3%	0.4%	0.0%	100.0%
Ottawa	Households	41357	170785	0	220136	1586	0	0	433864
	% of area	9.5%	39.4%	0.0%	50.7%	0.4%	0.0%	0.0%	100.0%
Toronto	Households	171520	915221	0	946946	0	10868	0	2044555
	% of area	8.4%	44.8%	0.0%	46.3%	0.0%	0.5%	0.0%	100.0%
Kitchener-Waterloo	Households	21524	83870	0	97807	0	0	0	203201
	% of area	10.6%	41.3%	0.0%	48.1%	0.0%	0.0%	0.0%	100.0%
Hamilton	Households	45985	124854	0	121546	1123	0	0	293508
	% of area	15.7%	42.5%	0.0%	41.4%	0.4%	0.0%	0.0%	100.0%
St.Catharines-Niagara	Households	28040	74817	0	63988	0	0	0	166845
	% of area	16.8%	44.8%	0.0%	38.4%	0.0%	0.0%	0.0%	100.0%
London	Households	29773	92892	0	109152	0	0	0	231817

	% of area	12.8%	40.1%	0.0%	47.1%	0.0%	0.0%	0.0%	100.0%
Windsor	Households	19612	68840	0	65306	0	0	0	153758
	% of area	12.8%	44.8%	0.0%	42.5%	0.0%	0.0%	0.0%	100.0%
Winnipeg	Households	40260	133890	0	147785	187	0	159	322281
	% of area	12.5%	41.5%	0.0%	45.9%	0.1%	0.0%	0.0%	100.0%
Calgary	Households	27731	206778	0	192854	0	0	1289	428652
	% of area	6.5%	48.2%	0.0%	45.0%	0.0%	0.0%	0.3%	100.0%
Edmonton	Households	35764	267972	0	281856	0	543	0	586135
	% of area	6.1%	45.7%	0.0%	48.1%	0.0%	0.1%	0.0%	100.0%
Vancouver	Households	79252	504610	0	410153	0	0	0	994015
	% of area	8.0%	50.8%	0.0%	41.3%	0.0%	0.0%	0.0%	100.0%
Victoria	Households	16616	74344	0	74187	0	709	0	165856
	% of area	10.0%	44.8%	0.0%	44.7%	0.0%	0.4%	0.0%	100.0%
Total	Households	1688530	6271742	604	5946633	11875	23260	1877	13944521
	% of area	12.1%	45.0%	0.0%	42.6%	0.1%	0.2%	0.0%	100.0%

Appendix 4: Number of households with cell and non-cell telephone numbers (December 2013)

Excluding cells, how many different telephone numbers are in the household?	Is there an active cell phone in the household?				
	Yes	No	Don't know	Refusal	Total
No other types of telephone service (no other numbers)	2,905,655	125,459	-	-	3,031,114
One or more other tel. #s	8,562,273	2,243,562	23,617	15,078	10,844,530
Don't know	6,836	560	-	-	7,396
Refusal	10,752	4,122	-	-	14,874
Not stated	30,657	15,955	-	-	46,612
Total	11,516,173	2,389,658	23,617	15,078	13,944,526

*** End of document ***