

**BEFORE THE CANADIAN RADIO-TELEVISION
AND TELECOMMUNICATIONS COMMISSION**

**TELECOM NOTICE OF CONSULTATION CRTC 2013-551,
*REVIEW OF WHOLESALE SERVICES AND ASSOCIATED
POLICIES***

REPLY COMMENTS

OF

BELL ALIANT AND BELL CANADA

24 OCTOBER 2014

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EXECUTIVE SUMMARY

E1. We are pleased to submit these Reply Comments on behalf of both Bell Canada and Bell Aliant.

E2. In this proceeding, we apply two fundamental principles of wholesale regulation to the main issues the Commission has identified. The principles are: (i) that promoting facilities-based competition will deliver the greatest benefits to Canadians and the Canadian economy and (ii) that the appropriate policy focus is competition in retail markets. As we describe in these Reply Comments, despite being abandoned by CNOC, these principles remain widely supported by economic evidence, experts, and other participants in this proceeding.

E3. Applying these principles to broadband services, it is clear that forbearance is required. For the reasons we set out, the record shows that all broadband services are part of the same relevant product market. Moreover, the expert evidence submitted by many parties in this proceeding demonstrates that this market is intensely competitive between facilities-based providers. Responses to requests for information demonstrate that ISPs relying on mandated access do not materially increase competition and most do not pass on wholesale rate reductions to consumers. By contrast, wireless services are an increasingly important competitive factor in broadband markets.

E4. Because mandated access to wholesale high-speed access services is not necessary for a competitive retail market, those services are not essential. This is true for existing GAS, HSA, and TPIA services, unbundled local loops, and CNOC's proposed BAS, which in addition to being unnecessary is duplicative and needlessly costly.

E5. We have therefore proposed a forbearance test that is practical, conservative, and reflective of the widespread competitiveness of retail markets in urban areas (for which Bands A and B can be used as a proxy). In comparison, CNOC has proposed a test that, as we describe, is focused on the wholesale rather than the retail market and elevates the interests of ISPs relying on mandated access above those of Canadian consumers.

E6. There are additional reasons why mandated access is not appropriate for FTTP networks regardless of the decision the Commission arrives at regarding legacy DSL/FTTN and cable networks. FTTP networks not only participate in the same highly competitive retail

markets as other broadband services but represent a massive new risky investment being undertaken by ILECs, cablecos, and a range of facilities-based competitors. As described in detail in these Reply Comments, there is concrete evidence on the record of the detrimental impact that mandated access would have on this ongoing investment. FTTP also warrants a unique regulatory approach given the fragility of the business case, the fact that it is a whole new network, and the unique features of its deployment.

E7. No participant in this proceeding has effectively disputed the evidence that retail markets for local voice services are intensely competitive on the basis of ILEC, cable, and wireless facilities-based competitors. Accordingly, unbundled loops are not essential and forbearance is certainly appropriate at least in urban areas (Bands A and B).

E8. As described in these Reply Comments, the appropriate test for re-regulation places the burden on proponents of mandated access to Ethernet and CDN services to demonstrate with compelling evidence that forbearance is no longer consistent with the *Telecommunications Act*. We show that the record now proves that since the 2008 forbearance decision there has been even more duplication of facilities. Moreover, the detailed analysis of the data we submitted from Margaret Sanderson of Charles River & Associates, finding that forbearance did not lessen competition, continues to be by far the best evidence on record in this area. In addition, in these Reply Comments we show that evidence subsequently put on the record supports the Sanderson Report.

E9. Applying the two fundamental principles, it is therefore clear that forbearance continues to be appropriate for Ethernet and CDN services. Facilities-based competition is extensive and increasing and retail markets are competitive.

E10. We agree with the many other parties that object to proposed alternatives to the use of Phase II to set the rates for mandated wholesale services, although we propose below a few suggestions to improve its application and streamline the rate-setting process. We also continue to believe that legacy network prices should not be lowered any further, in order to promote the adoption of next generation networks.

1.0 INTRODUCTION

1. We are pleased to submit these Reply Comments on behalf of both Bell Canada and Bell Aliant, which had, until now, been participating in this proceeding separately. However, we will now be providing combined submissions given the pending privatization of Bell Aliant by BCE.¹ While our separate positions were substantially aligned, we had advanced slightly different broadband and voice forbearance proposals, which we will reconcile in section 3.6 below.

2. Certain information is filed in confidence with the Commission pursuant to section 39 of the *Telecommunications Act* (the *Act*) and the directions provided by the Commission in the BTIB 2010-961.² In particular, the information which we have provided in confidence represents disaggregated cost information and is of a type which the Commission has indicated should be treated as confidential. Release of this information on the public record would provide existing or potential competitors with invaluable competitively-sensitive information that would not otherwise be available to them, and which would enable them to develop more effective business strategies. Release of such information could prejudice our competitive position resulting in material financial loss and cause specific direct harm. An abridged version is provided for the public record.

3. These Reply Comments will summarize our positions in respect of each of broadband, local voice and large enterprise services. First, however, we present the key principles that should guide the Commission's approach to wholesale regulation.

2.0 PRINCIPLES OF WHOLESALE REGULATION

4. At the outset, it is useful to identify a couple of principles that should guide the Commission in its review of the wireline wholesale services framework. These relate to the superiority of facilities-based competition and to the fact that retail competition, not wholesale, is the ultimate policy goal.

¹ The acquisition by BCE of all those shares in Bell Aliant it did not already own is expected to be completed by 31 October 2014.

² Broadcasting and Telecom Information Bulletin CRTC 2010-961, *Procedures for filing confidential information and requesting its disclosure in Commission proceedings*, dated 23 December 2010, as amended in BTIB 2010-961-1, dated 26 October 2012 to reflect the directives in Telecom Regulatory Policy CRTC 2012-592, *Confidentiality of information used to establish wholesale service rates*.

2.1 Promoting Facilities-Based Competition Benefits Canadians and the Economy

5. In the Second Intervention of Bell Canada, we described how and why facilities-based competition had become a fundamental principle of telecommunications policy in Canada, including as it pertains to the wholesale regulatory framework.

6. By contrast, CNOC disavowed "the belief that increasing investment in facilities *per se* [is] the direction in which policy should push the smaller ISP"³ and claimed that "the Commission's focus should be on promoting service-based competition, rather than trying to focus on increasing capital investment by either incumbents or their competitors."⁴

7. CNOC no doubt felt compelled to take this position because, after arguing for years that an increasingly extensive wholesale regulatory framework would lead to increasing investment by competitors, no evidence of such investment has emerged. Yet facilities-based competition remains what the Commission should pursue. As we explained in the Second Intervention of Bell Canada, that view has been supported by:

- *The Government of Canada*: which requires that the wholesale framework be developed "with a view to increasing incentives for innovation and investment in and construction of competing telecommunications network facilities"⁵, not with a view to promoting service-based competition;
- *The Telecom Policy Review Panel*: which concluded that the benefits of service-based competition "may be outweighed by the dramatic reduction in competition at the physical and network layers [and that] innovation at the service or application layers may depend on capabilities and innovation at the physical or network layers... A broad scope of mandated wholesale access may thus undermine long-run opportunities and incentives for innovation at all levels."⁶
- *The Competition Bureau*: which has stated its belief, reiterated in this proceeding, that "[w]hile consumers benefit from both innovations at the network and facilities layers and at the services and applications layer, historically, the most meaningful innovations for

³ CNOC First Intervention, paragraph 91.

⁴ CNOC First Intervention, paragraph 185. CNOC does claim that an ever-expanding mandated access regime will provide opportunities for investment by competitors but provides no explanation of why or how this would take place and no reason to question the extensive rejection of this ladder of investment theory that we summarized in the First Bell Intervention.

⁵ Policy Direction.

⁶ Telecom Policy Review Panel (2006), paragraphs 3 to 36.

consumers have taken place in the network... Of course, innovation at the applications layer benefits consumers as well, but it is dependent on innovation in the network.⁷

- *Expert economists:* In a study released in June 2014, Professor Christopher Yoo finds based on extensive empirical evidence that "service-based competition has a statistically significant negative impact on NGA coverage, while facilities-based competition has a statistically significant positive effect on NGA coverage."⁸ This is consistent with the other expert evidence before the Commission in the present proceeding, which attributes the healthy state of the Canadian broadband market today to facilities-based competition, not to competition enabled via mandated access.(emphasis added)

8. The primary importance of facilities-based competition has also been widely recognized by others in this proceeding.

2.2 The Essential Facilities Test Should Promote Facilities-Based Competition in Retail Markets

9. In the First Intervention of Bell Canada, we stated our view that the current definition of "essential facilities" is appropriate.⁹ It was developed by the Commission based on economic principles and continues to be supported by the Competition Bureau in the current proceeding.¹⁰ Notably, the definition properly focuses on competition in retail markets by asking whether the absence of mandated access to a wholesale facility would result in a "substantial lessening or prevention of competition **in the relevant downstream market.**" It does not focus on individual competitors.

10. The definition also acknowledges the importance of investment by competitors, requiring them to invest rather than rely on mandated access for facilities that can be duplicated. A facility can only be essential if it "is not practical or feasible for competitors to duplicate the functionality of the facility". In the Second Intervention of Bell Canada we explained why CNOC's proposal to change "practical or feasible" to "economically efficient" was unprincipled and renders the essential facilities test meaningless.¹¹

⁷ Commissioner of Competition, Argument in Telecom Public Notice CRTC 2006-14, *Review of regulatory framework for wholesale services and definition of essential service*, (23 November 2007) [emphasis added].

⁸ Christopher S. Yoo, "U.S. vs. European Broadband Deployment: What Do the Data Say?" (June 2014), available online at <https://www.law.upenn.edu/live/files/3352-us-vs-european-broadband-deployment> [emphasis added].

⁹ Bell Canada First Intervention, paragraph 40.

¹⁰ Competition Bureau First Intervention, paragraph 5 and note 7.

¹¹ Bell Canada Second Intervention, paragraphs 36 to 38. See also CNOC First Intervention at paragraph 188, where it claims that those who choose not to build facilities "should have access to the full range of specific network elements that are made available to the incumbents' own retail operations, since they are all essential."

11. The arbitrariness of CNOC's proposals has been confirmed by its Second Intervention and its responses to requests for information. First, curiously CNOC claims that investment in competing fibre-to-the-premises (FTTP) facilities is economically inefficient when undertaken by competitors that otherwise rely on mandated access but not when undertaken by ILECs or cablecos.¹² CNOC is improperly equating economic efficiency with whatever is financially desirable for its members. Second, CNOC's proposed forbearance tests require four separate facilities-based wireline competitors in a market, each offering wholesale high-speed access services (WHSAS), before forbearance could be granted. In other words, a facility would be treated as essential (i.e., not duplicable) even after it had been duplicated multiple times. It is clear that this is not a definition of an essential facility with any practical meaning. Finally, CNOC's proposed forbearance test focuses on wholesale rather than retail markets.¹³ CNOC's proposed change to the definition of essential facility must be rejected and the existing definition must be applied rigorously.

12. While we support the essential facilities definition from Decision 2008-17¹⁴, we note that in practice the Commission has been reluctant to withdraw mandated access even where the facility or service does not meet the definition of an essential service. The costs of inappropriately mandating access outweigh the costs of failing to mandate access, as discussed in our Second Intervention. These costs were highlighted by the Bureau in its Second Intervention:

[M]andating access to non-essential facilities can harm innovation in three ways:

- i. competitors have reduced incentives and ability to innovate in their networks because they do not control certain parts of them;
- ii. the fact that the incumbent must share its network with competitors reduces the incumbent's incentives to innovate, as benefits of any successful innovation will have to be shared, while the costs of unsuccessful innovation will not; and
- iii. mandated access will make it more difficult for the incumbent to evolve its network. Changes to the network that might affect copper loops, and thus competitors, will have to be negotiated with them, and the necessary accommodations may be costly. For example, the need to continue to offer competitors copper loops may impose an additional cost to fibre roll-out.¹⁵

¹² CNOC(Bell Aliant)31Jul14-3b.

¹³ See CNOC(Bell Canada)31Jul14-3d.

¹⁴ Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service*.

¹⁵ Bureau(Primus)31Jul14-13.

13. The Bureau therefore continues to support the rigorous application of the existing essential facilities test as well.

3.0 WHOLESALE BROADBAND SERVICES MUST NOT BE MANDATED

3.1 The Relevant Product Market is Broadband Internet Access Services

14. From the time Internet access was first forborne through to the speed-matching decision, the Commission has treated all wireline Internet access services as part of a single product market regardless of the infrastructure over which they are delivered.¹⁶ As we explained in our First and Second Intervention, it remains appropriate to define the relevant market for purposes of analyzing retail competition in relation to broadband as broadband Internet access services.¹⁷

15. CNOC has suggested that the Commission should now depart from this long-standing practice. In particular, it implied in requests for information addressed to the Competition Bureau that different wireline Internet access services are not part of the same market because a 1 Mbps service would not be a substitute for a 150 Mbps service¹⁸. This fundamentally misunderstands the market definition exercise and the public policy approach that is based on it. Market definition does not simply ask whether two particular products are the same. As the Bureau notes, market definition involves determining what set of products a single firm would need to control in order to impose a significant non-transitory increase in price above competitive levels.¹⁹

16. Even two products that are not themselves functionally substitutable may fall on a spectrum in which each product is a substitute for the next and therefore all fall in the same relevant market. From a public policy perspective, regulatory intervention in respect of any one of the products is inappropriate because competition from other products in the market would, by definition, continue to protect the interests of users.

¹⁶ Telecom Regulatory Policy CRTC 2010-632, *Wholesale high-speed access services proceeding* (TRP 2010-632), issued 30 August 2010, paragraph 121.

¹⁷ Our interventions combine residential and business broadband services (used primarily by small and medium businesses (SMB)) into a single market. We note however, that the Commission has historically treated residential and SMB broadband services as distinct, though it has concluded they share common underlying costs as per Telecom Decision CRTC 2013-73, *Canadian Network Operators Consortium Inc. – Application to review and vary Telecom Regulatory Policies 2011-703 and 2011-704*. If the Commission took the view that residential and SMB broadband services formed two different markets, we submit that both markets are competitive, the SMB one all the more so, and should be forborne under our proposed test.

¹⁸ Bureau(CNOC)29Aug14-1.

¹⁹ Bureau, Reply to request for further interrogatory responses (16 September 2014) at paragraph 6.

17. This is best illustrated by looking at a real-life example. In Toronto, the Bell Fibe Internet service and Rogers' hybrid Internet service each offers five different speeds. Table 1, below, outlines the retail offers for these speeds:

Table 1
Bell and Rogers Internet Offers²⁰

Bell Fibe 5 Mbps	Rogers 10 Mbps	Bell Fibe 15 Mbps	Bell Fibe 25 Mbps	Rogers 30 Mbps	Bell Fibe 50 Mbps	Rogers 60 Mbps	Rogers 150 Mbps	Bell Fibe 175 Mbps	Rogers 250 Mbps
\$47.95	\$51.99	\$57.95	\$61.95	\$61.99	\$69.95	\$69.99	\$85.99	\$89.95	\$99.99

18. Consumers typically view all of these services as functionally substitutable "high-speed Internet access" services as they each can be used for popular bandwidth-intensive applications.²¹ But even if consumers did not have that view, the services would all still be part of the same relevant product market because a single "hypothetical monopolist" could not profitably impose a price increase if it controlled only a subset of them. For example, if a hypothetical monopolist over 5 Mbps retail wireline Internet access services (currently available at \$47.95) imposed a significant price increase, consumers could simply switch to 10 Mbps service (currently available at \$51.99). Similarly, if a hypothetical monopolist imposed a significant price increase on 175 Mbps service (currently available at \$89.95) a consumer could simply switch to 150 Mbps service (currently available at \$85.99). This is not consistent with separate relevant markets.²² The evidence on the record indicates that consumers switch readily between these various products.²³

²⁰ See http://www.bell.ca/Bell_Internet/Internet_access and <http://www.rogers.com/web/link/hispeedBrowseFlowDefaultPlans>. Rogers offers an additional 350 Mbps speed but with very limited availability.

²¹ A full range of ISPs typically markets Internet access services of 5 Mbps or greater as high-speed Internet access services. That speed is also equal to or higher than the speed advertised as recommended by popular bandwidth-intensive services (e.g., Netflix and YouTube recommend it for streaming HD video and Skype recommends it for high quality and group video calls). It is also the benchmark the Government of Canada has set as a goal in its Digital Canada 150 plan and that the Government describes as "a rate that enables e-commerce, high-resolution video, employment opportunities and distance education." This includes ILEC services such as Bell Fibe Internet 5 (http://www.bell.ca/Bell_Internet/Internet_access), SaskTel High Speed Basic / infiNET High Speed Basic (<http://www.sasktel.com/wps/wcm/connect/content/home/internet/high-speed/high-speed-plans>), and TELUS Internet 6 (<http://www.telus.com/en/bc/internet>); cable company services such as Cogeco High Speed Internet Express 6 (http://www.cogeco.ca/web/on/en/residential/internet/packages/express_6), and Videotron Basic Speed Internet (<http://www.videotron.com/residential/internet/residential-internet>); wireless services such as Bell Mobile Internet Flex Plans (http://www.bell.ca/Mobility/Cell_phone_plans/Turbo-Stick-and-Turbo-Hub-data-plans/Flex_plan.tab), Rogers Heavier Usage Flex Rate Plans for Hubs (http://www.rogers.com/web/content/mobile-plans?asc_refid=plans-pricing), and Wind \$35 Mobile Internet Plan (<http://www.windmobile.ca/plans-and-devices/plans/mobile-internet-plan-details/Mobile-Internet-Plan-35>); and satellite services such as Xplorenet Share Internet (<http://www.xplorenet.com/plans-pricing/residential-plans-pricing>).

²² See Bell Canada(The Bureau)31Jul14-1.

²³ See e.g., SaskTel(Commissioner)31Jul14-1, "Certainly there is evidence that certain customers switch easily and often between various Telco products and Cableco products, while certain other customers have replaced 'wired' products from either vendor type with wireless solutions. Switching costs from these technologies to wireless are negligible and switching costs from wireless are fairly small and have been reduced with the introduction of the Wireless Code of Conduct".

19. In other words, Internet access services at all of these speeds (which can be and are offered over FTTP, fibre-to-the-node (FTTN), cable, and wireless networks) compete in the same relevant product market.

20. This is corroborated by the findings of other regulators and the expert evidence in this proceeding. For example, Ofcom in the UK has found provisionally that "broadband services provided... via copper, cable and fibre access networks at all speeds are within the same market, including superfast (30Mbit/s or faster) broadband services."²⁴ Professor Church confirms that broadband services provided by the ILECs are not a separate relevant product market and that the relevant market includes at least all wireline Internet access services (i.e., FTTN, FTTP, and cable) and potentially also wireless services.²⁵ He reports that:

[A]lthough consumers may be willing to pay a premium for FTTH services and the speeds they offer, a hypothetical monopolist that offers such services using ILEC facilities may be constrained in raising prices because above a certain price consumers will substitute back to current-generation cable and copper services. For example, a survey conducted by the regulator in New Zealand found limited enthusiasm among consumers to pay more for ultra-fast broadband: the survey found that fewer than 20% of consumers were willing to pay an additional NZ \$10 per month for ultra-fast speeds.

21. It is also consistent with the views expressed by market participants, including both those who deploy FTTP networks and those who are their primary competitors. This includes nearly all participants in this proceeding.²⁶

²⁴ Ofcom, *Review of the wholesale broadband access markets* (11 July 13), paragraph 3.4.

²⁵ Church Report, paragraph 157.

²⁶ See Cogeco(Bureau)31July14-1, "[E]ach service category should be considered in the same relevant product market"; TELUS(The Bureau)31Jul14-1, "TELUS offers no services that it provides uniquely over FTTP. Some of these services, such as voice, can be provided over the legacy copper network, and all of the services currently provided over FTTP can also be provided over fibre-to-the-node (FTTN) Digital Subscriber Line (DSL) facilities. These services are also generally available over cable facilities. Many of these services are also available over multiple wireless networks. While it is difficult to make predictions in an environment where technological change and innovation are rapid, at this time TELUS does not anticipate that any services will be offered uniquely over FTTP in the next two years. Furthermore, if any such services were offered, they could presumably also be offered by cable companies, given the capabilities of their facilities. Product market definitions are for services, not technologies. There is no difference from the customer's point of view, for example, between voice or Internet service provided over FTTP and the same service provided over copper, FTTN, or cable facilities"; MTS(The Bureau)31Jul14-1, "In the case of internet... services over [FTTN and cable] are substitutes for those provided over FTTP, as are wireless internet services provided over HSPA+, LTE or fixed wireless networks"; SaskTel(Commissioner)31Jul14-1, "fibre accesses will provide certain services that are not available over copper but will in all probability be available over cable"; Rogers(The Bureau)31Jul14-1, "broadband services using DSL, cable, FTTN and FTTP are capable of providing connectivity at these speeds, are marketed as replacements for each other, and consumers switch between broadband services delivered over these different technologies."; Shaw(The Bureau)31July14-1, "[T]he majority of users do not place great value on the maximum speeds that are available through FTTP and DOCSIS. In other words, although these facilities might be capable of offering speeds in excess of 150 Mbps, it is certainly not necessary for competing technologies to offer these ultra fast speeds in order to provide services that qualify as substitutes."

22. Despite having been given a number of opportunities to do so, no participant in this proceeding has identified a single application that today requires speeds of 25 Mbps to 50 Mbps, let alone much higher speeds that would only be available from FTTP networks and not FTTN, DOCSIS3.0, or DOCSIS3.1 networks.²⁷ The conclusion that the Commission must draw is therefore that Internet access services offered over at least FTTP, FTTN, and cable networks all compete in a single relevant product market.

3.2 The Retail Broadband Market is Competitive

23. So far in this proceeding, participants have provided extensive and uncontested evidence on the record demonstrating the competitiveness of retail broadband markets and, in particular, the extent and intensity of rivalry between ILECs and cablecos. This evidence included:

- *Broadband prices:* Quality adjusted broadband prices have fallen by up to 64% since 2008²⁸ and broadband pricing in Canada is in line with international peers.²⁹
- *Broadband access:* According to the Commission's 2014 Monitoring Report, by 2013 95% of Canadians already had access to broadband of 5 Mbps or more, 81% to broadband of 25 Mbps or more, and 81% to LTE wireless networks.³⁰ In all cases this will have increased further since.
- *Broadband adoption:* Canada is in the top five of G20 nations in terms of percentage of connections faster than 4 Mbps, average fixed line download speed, and average wireless download speed.³¹ Canada is also a leader in the number of fixed broadband connections per household, in line with the UK, France, and Germany, and ahead of Italy, Japan and Australia.³²
- *Broadband usage:* Canada is a global leader in broadband usage measured in hours, hours of video, and visits.³³
- *Changing market shares:* Cable share of net new additional subscribers increased from less than 50% in 2002 to approximately 80% in 2008 and then ILECs battled back with

²⁷ See also Bell Canada(TheBureau)31July14, "It is true that FTTP can support much faster download speeds than the 15 Mbps download speeds required for most applications... today few applications require anything more than the 15-20 Mbps range described above."

²⁸ See Church Report, included as Attachment 1 to our First Intervention, at Table 11 and Table 12.

²⁹ See Church Report, Table 11 and Table 12.

³⁰ In previous Interventions we provided statistics from the CRTC, 2013 Communications Monitoring Report at Figures 6.1.4, 6.1.5, and at Figure 5.5. Since then, the Commission has made the 2014 Communications Monitoring Report available. See Tables 5.3.12 and 5.5.0.

³¹ Akamai, State of the Internet, Q4 2013 Report, Volume 6, Number 4, and OECD, Communications Outlook 2013.

³² CRTC, 2014 Communications Monitoring Report at Figure 6.0.4.

³³ comScore Inc., Canada Digital Future in Focus 2014, March 2014.

their share of net new additional subscribers increasing from approximately 20% to approximately 60%.³⁴

- *Aggressive marketing campaigns:* Our campaigns have recently focused on directly and aggressively competing with cable companies on the basis of innovative service features and price.³⁵

24. Having evaluated the evidence submitted in the initial interventions and interrogatories in this proceeding, the Competition Bureau has urged the Commission to continue with the framework and forbearance approach that it has taken since 1997 because "[i]t has contributed to the successful development of facilities-based competition in Canadian wireline markets. Most Canadians residences... enjoy the benefits of this increased competition in retail markets."³⁶

3.2.1 The uncontested expert evidence demonstrates that the retail market is competitive

(i) Competition Bureau

25. The Bureau has determined, in particular, that "ILECs do not possess market power in markets for residential services" and that the retail market for residential wireline access services is competitive.³⁷ Consistent with the Commission's Decision 94-19 framework, the Bureau examined the "likely vigour of competition between competing carriers"³⁸. The sound economic conclusion they reached reflects the reality of the unprecedented competitive battle between ILEC and cable carriers that has been sparked by the shift to IP networks:

[S]everal years ago, cable companies decided to invest in developing a ubiquitous network with the expectation of earning quasi-rents in broadcasting markets. Cable companies subsequently became able to use this same infrastructure to compete in an additional market [residential wireline access services]... Additionally, because the cost of adding an additional wireline customer is miniscule when compared to the costs of entry, [cable carriers] may have been able to, and may have had the incentive to, compete for the entire wireline access services market.³⁹

³⁴ See Church Report at Figure 12.

³⁵ See Figure 4 and Figure 5 in our First Intervention.

³⁶ Bureau Second Intervention, paragraph 35 (emphasis added).

³⁷ Bureau Second Intervention, paragraph 26.

³⁸ Bureau Second Intervention, paragraph 19; Telecom Decision CRTC 94-19, *Review of Regulatory Framework*, Part II.A.2.

³⁹ Bureau(Primus)29Aug14-17.

26. The Bureau has indicated that facilities-based competition between the ILEC and cable carrier is sufficient to ensure a competitive retail market for residential retail broadband Internet services under certain conditions, notably that the competing networks have large sunk costs.⁴⁰ In fact, the conditions required for such competitive outcomes prevail across all residential retail broadband markets. First, as we explained in our evidence and as elaborated upon in the Church Report, each type of retail wireline network has these large sunk costs and meets the other conditions set out by the Bureau.⁴¹ There is nothing that shields any one of them from this intensive competition. Indeed, the rivalrous behaviour described above is most evident between ILEC FTTP networks and the cable networks operated by the cablecos. Second, cable networks have been able to increase their speeds at a fraction of the cost of ILECs.⁴²

(ii) *Expert economist reports*

27. In addition to the Competition Bureau, two expert reports filed in this proceeding have found that the retail residential broadband market in Canada is competitive and provided detailed empirical evidence to support that conclusion. First, in his expert report Professor Church concludes that:

The extent of competition in residential broadband services in particular means it is unlikely that an ILEC (in the relevant geographic market) is dominant upstream or downstream. The downstream market for broadband access exhibits considerable rivalry... [that is] not consistent with dominance or the inefficient exercise of market power. The experience in Canada clearly shows the importance and extent of platform competition in terms of declining real prices per megabyte per second and the availability and adoption of high speed services.⁴³

28. This conclusion is based on empirical evidence that quality-adjusted broadband prices have fallen by up to 64% since 2008, the number of high-speed Internet lines and the broadband penetration rate (the second highest among OECD countries) have grown significantly, capital intensity is increasing and outpacing U.S. comparables, shares of net additions have fluctuated significantly, and Canada is outperforming international peers. As Professor Church explains, "the rivalry between the cable companies and the ILECs results in

⁴⁰ See Bureau(Primus)18Aug14-8.

⁴¹ This is elaborated in Attachment 1 to the First Intervention of Bell Canada at paragraphs 224 and 225.

⁴² Arthur D. Little, "The Moment of Truth: Cable Infrastructure as a Competitive Next-Generation Access Platform in a Financial Crunch?", http://www.adlittle.com/downloads/tx_adlreports/ADL_The_Moment_of_Truth_02.pdf.

⁴³ Church Report, paragraphs 17 and 18.

competition over price and quality. The emphasis on quality (speed in particular) results in greater investment, higher demand, and higher usage."⁴⁴

29. Second, the Lemay-Yates Report submitted by Shaw concluded that:

The Canadian market exhibits the characteristics of robust competition between telcos and cablecos for broadband services and the wireline segment in general. This is reflected in high capital investment levels among cablecos and telcos for their wireline operations, in a wireline market that is increasingly mature, as well as by the expanding availability of these services.⁴⁵

30. Lemay-Yates based this conclusion in part on empirical evidence that, on average, major network operators have reinvested 54% or more of their EBITDA in networks (72% for Bell Canada and Telus collectively by Q3 2013), competitive rivalry has shifted subscribers from cable companies to ILECs, penetration of 5 Mbps service increased by 50% from 2008 to 2012, and total monthly usage per household tripled from 2008 to 2012.

31. The Analysis Group report, submitted by CNOC, does not contest any of the evidence or reasoning with respect to the competitiveness of retail broadband markets relied upon by other experts and in fact largely corroborates it. The Analysis Group finds that Canadian broadband network operators "rank near the top of OECD countries in terms of public telecommunications investment per access path... and per capita"⁴⁶, that Canada ranks favourably among OECD countries in terms of broadband availability⁴⁷, and that Canada exceeds the OECD average in terms of percentage penetration of broadband connections exceeding 10 Mbps.⁴⁸

32. Ultimately, the Analysis Group claims that Canada is below the OECD average in terms of the percentage of all broadband connections that are based on FTTP infrastructure. However, it makes no attempt at all to connect that causally to any perceived lack of competition in the retail market. In fact, given the high penetration of fast broadband speeds in Canada this is more likely explained by the much greater penetration of cable broadband and the earlier adoption of FTTP.⁴⁹ Moreover, if the prevalence of FTTP is considered a problem it is hard to see how undermining incentives to invest in FTTP through mandated access could be considered a solution.

⁴⁴ Church Report, paragraph 196.

⁴⁵ See Lemay-Yates Report, page 3.

⁴⁶ Analysis Group Report, page 24.

⁴⁷ Analysis Group Report, page 27.

⁴⁸ Analysis Group Report, page 30.

⁴⁹ The unique cable penetration level in Canada is acknowledged in the Analysis Group Report, paragraph 66.

3.2.2 The deployment of FTTP infrastructure is pro-competitive

33. It is clear that the deployment of FTTP networks brings technological benefits to Canadian consumers and businesses. CNOC, however, submits that it may also constitute a threat to competition, saying:

[t]o the extent that incumbents refuse to grant access to [FTTP] technology to their competitors, new product markets are being created that only those incumbents deploying FTTP can serve. For this reason, the Commission must be vigilant to ensure that incumbents do not engage in the deployment of technological advances in their networks in a manner that increases their market power in downstream markets.⁵⁰

34. These concerns are unwarranted. First, the roll-out of FTTP does not result in the creation of new product markets over which the FTTP provider could exercise some newfound market power. As indicated earlier, broadband services provided over FTTP inhabit the same product market as services offered over FTTN and cable infrastructure, as well as, increasingly, wireless. In fact, CNOC admits in a footnote that FTTP is used to compete in the same markets as "cable carrier networks having similar capabilities."⁵¹ As the Bureau explained, "[i]f the services provided by FTTP are in the same product market as residential wireline access, then the conclusion that there is no retail market power follows, and they should not be deemed essential."⁵² In light of the fact that FTTP services are indeed part of the broader broadband product market, it follows that FTTP services, like other broadband services, are competitive.

35. Moreover, the deployment of FTTP technology is not the purview of any single provider: cable companies, small ILECs operating outside their traditional territory, and third parties are all deploying FTTP themselves.⁵³

36. Second, the notion that the Commission must "be vigilant to ensure that incumbents do not engage in technological advances in their networks" has the relationship between competition and the deployment of network improvements entirely backwards. Deploying FTTP does not reduce competition. In fact, it is the result of competition – the primary reason companies make massive investments in risky new technologies is to gain an advantage in

⁵⁰ CNOC First Intervention, paragraph 135 and 136.

⁵¹ CNOC First Intervention, note 50.

⁵² Bureau Second Intervention, paragraph 34.

⁵³ For example, Rogers offers 350 Mbps symmetrical service in select areas. See <http://www.rogers.com/web/link/hispeedBrowseFlowDefaultPlans?setLanguage=en>. This is based on Rogers' deployments of FTTH and not on Rogers' cable network or JTF First Intervention, paragraph 31.

competitive markets. Commission policy should encourage these investments because they benefit consumers and the Canadian economy.

3.3 ISPs Relying on Mandated Access Do Not Materially Increase Competition

37. ISPs who rely on mandated access do not substantially affect the level of retail broadband competition. First, the evidence shows that ISPs do not use mandated access in order to climb the ladder of investment so as to eventually deploy their own networks. Second, the wholesale cost savings granted by the Commission are only rarely being passed on to end-users. Finally, while CNOC members have claimed the introduction of a number of service-based innovations, to the extent these are even innovations⁵⁴ they cannot compare with the scale, impact and reach of the facilities-based innovations that ILECs, cable operators and other independent operators bring to Canadian consumers. In addition, many of the claimed service-based innovations could not even exist without innovations at the network level.⁵⁵

3.3.1 CNOC has abandoned facilities-based competition

38. As we described above and in the Second Intervention of Bell Canada, in this proceeding CNOC has abandoned the ladder of investment and the well-established consensus in favour of facilities-based competition.⁵⁶

39. We can only guess that, after arguing for years that an increasingly extensive wholesale regulatory framework would lead to increasing investment by competitors, CNOC changes its position in light of the absence of evidence that such investment has emerged. In the First Intervention of Bell Canada, we showed that this so-called "ladder of investment" theory had been rejected or called into question by the Bureau, the Telecom Policy Review Panel, and foreign regulators in previous proceedings and is not supported by the economic evidence and literature.⁵⁷ More importantly, we showed that it is entirely unsupported by the evidence in Canada, with the main proponents either failing to follow through on or actively abandoning

⁵⁴ Moreover, it is not clear that the innovations claimed by CNOC, for instance in relation to customer service, or to rural and minority communities are either unique (i.e., that they had not, or would not have, been introduced by other market participants) or that they have any relation to mandated access (e.g., the provision of service to rural areas through a fixed wireless solution is independent of mandated access to WHSAS or unbundled local loops).

⁵⁵ Commissioner of Competition, Argument in Telecom Public Notice CRTC 2006-14, *Review of regulatory framework for wholesale services and definition of essential service*, (23 November 2007).

⁵⁶ See for instance Bell Canada, Second Intervention, paragraphs 4 to 18.

⁵⁷ See Bell Canada First Intervention, paragraphs 60 and 61.

investments in facilities. No party has pointed to material evidence of a competitor climbing the ladder of investment.⁵⁸

40. Yet facilities-based competition remains what the Commission should pursue. As set out above, that view has been supported by the Government of Canada, Telecom Policy Review Panel, Competition Bureau, expert economists, and just about every other participant who builds networks in this proceeding. CNOC's proposal simply rejects the consensus without contesting any of the evidence relied upon or conclusions reached by these authorities.

41. CNOC's proposal should be rejected for this reason alone. There are extensive dynamic benefits that remain to be achieved in Canada, some of which are easily predictable and others that cannot specifically be predicted today. In either case, for Canadians to stay on top in an increasingly digital and knowledge-based economy, the timely introduction of the most advanced networks and technologies is required. This can only be achieved through dynamic, facilities-based competition. As we have shown, it is those circumstances that particularly spur both incumbents and competitors to innovate and invest in next-generation network technology.⁵⁹

42. Mandated access disincentivizes investment and puts these benefits at risk.

43. There is thus a heavy burden on those seeking to significantly expand mandated access to demonstrate clear benefits in terms of both innovation and pricing, given the benefits to consumers of timely access to new and advanced facilities. As set out below, CNOC has not come close to discharging this burden.

3.3.2 ISPs do not pass on cost savings to consumers

44. If mandated access will not result in investment in improved facilities or significant service-level innovation, the only other potential benefit would be a short-term reduction in prices. If prices paid by consumers do not fall in-step with mandated wholesale rates then intervention simply transfers funds from facilities-based providers that use them to make significant investments to ISPs that do not, for no evident public purpose.

⁵⁸ See Bell Canada First Intervention, paragraph 62.

⁵⁹ See e.g., Bell Canada Second Intervention, paragraph 19.

45. Through requests for information, we sought information on the extent to which ISPs pass on cost savings to consumers. In Bell Canada's Second Intervention, we showed, based on the responses made available to us by Fibernetics and Primus, that ISPs that take advantage of mandated access did not pass on any of the benefits of Commission-mandated wholesale price reductions to residential consumers, and in only one case did they pass some (but not all) of the benefit on to business consumers.⁶⁰ Indeed, in some cases ISPs even raised their retail rates as the wholesale rate fell.

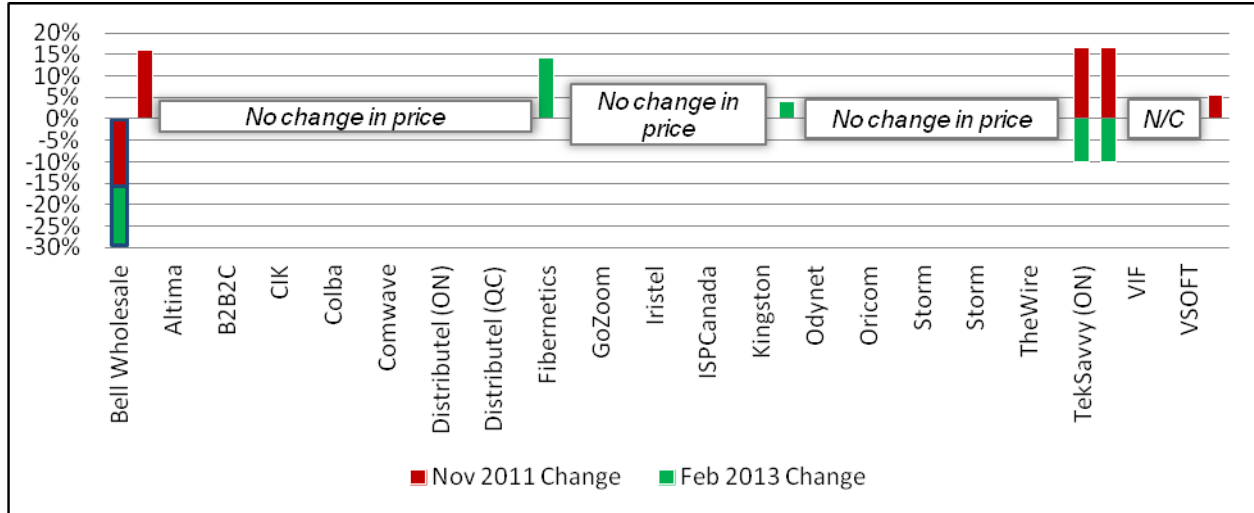
46. Additional responses to our requests for information are now available to us and confirm this conclusion. Figures 1 and 2, below, show changes in our mandated wholesale rate (including the average usage component)⁶¹ as a result of Commission decisions on 15 November 2011 and 14 February 2013 that reduced wholesale rates and the retail rates for each ISP for each Gateway Access Service (GAS) residential and business service speed. In particular, they show the change between the day before and the day six months after each Commission decision.

47. Figure 1 shows the rate changes that occurred between: (i) 14 November 2011 and 14 May 2012 and (ii) 20 February 2013 and 20 August 2013 for Bell Canada's Wholesale 5/6 Mbps GAS residential service and the associated ISP services. In the vast majority of cases, there was no reduction at all in the prices paid by consumers despite the significant reduction in wholesale rates – ISPs relying on mandated access simply accrued the whole benefit of lower rates to themselves. In six cases, ISP retail rates actually increased; while in two cases, the rates fell (but due to earlier retail price increases still remained higher than they were prior to the Commission's first decision in November 2011).

⁶⁰ See Tables 2 and 3 in our Second Intervention.

⁶¹ The usage amount included in each wholesale rate is based on network analysis conducted by Bell of the average customer usage at each speed. Appendix 1 displays the information presented in Figures 1, 2, 3 and 4 using absolute dollar amounts instead of percentages.

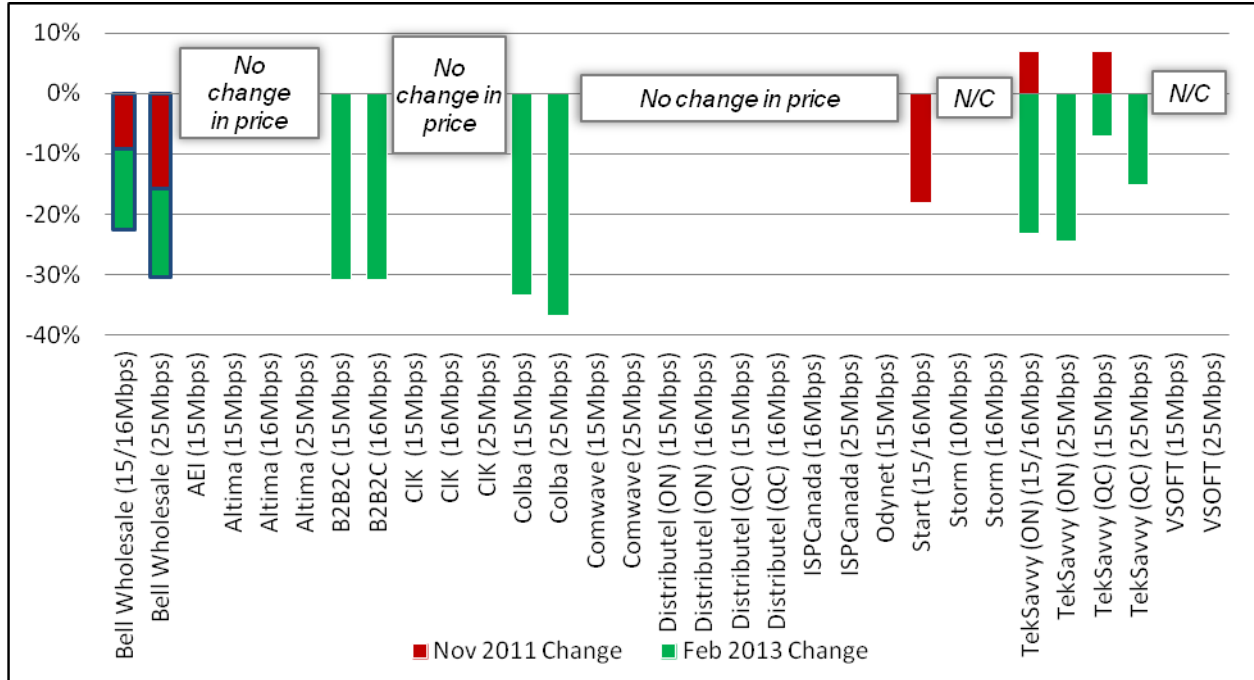
Figure 1
Impact of Mandated Rate Reductions on ISP Retail Offers
(5/6 Mbps Residential)⁶²



48. At higher speeds the picture is more mixed but still clearly demonstrates that ISPs cannot be relied upon to pass on any benefits of mandated wholesale price reductions to consumers. While a number of ISPs did reduce rates over the same period as the Commission reduced Bell Canada's wholesale rates, in more than three quarters of cases rates were not reduced. On average, wholesale rates fell by 25% while retail rates fell by just 8%. This is illustrated in Figure 2, below. Such a *de minimis* impact on pricing could not possibly outweigh the costs of mandating wholesale access.

⁶² Based on responses to _____(Bell Canada)28Mar14-8a.

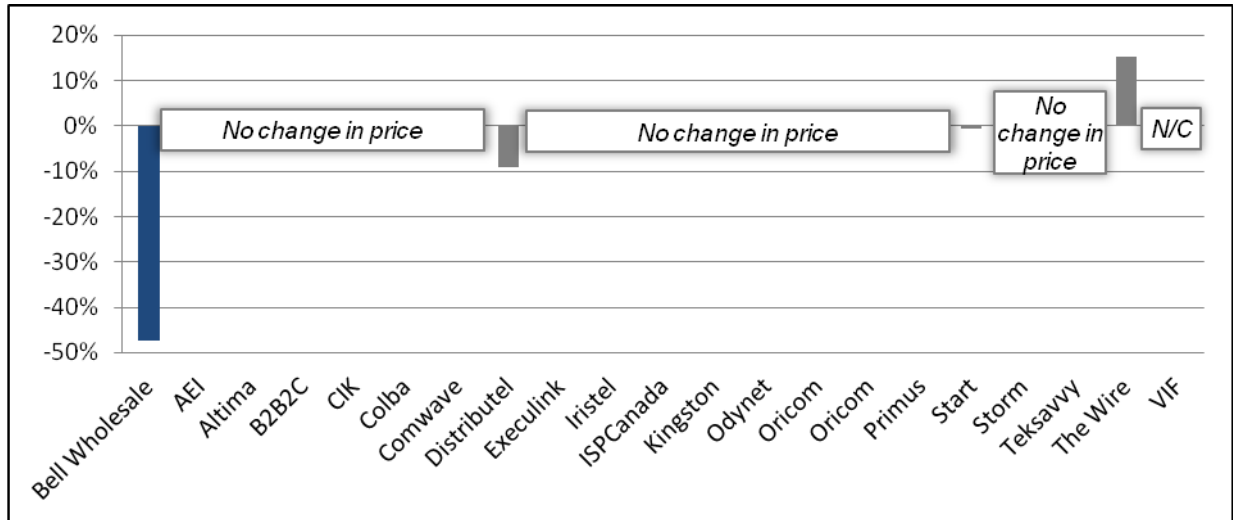
Figure 2
Impact of Mandated Rate Reductions on ISP Retail Offers
(10, 15, 16 and 25 Mbps Residential)⁶³



49. The same trend holds for business services as well. Figure 3 shows the wholesale rate change that occurred between 20 February 2013 and 20 August 2013 for Bell Canada's Wholesale 6 Mbps GAS business service and the retail prices of associated ISP services. In the vast majority of cases, there was no reduction at all in the prices paid by retail business users despite the very significant reduction in the wholesale rate – ISPs relying on mandated access simply accrued the whole benefit of lower wholesale rates to themselves. In one case ISP rates actually increased while in two cases the rates fell by a tiny fraction of the amount the wholesale rate fell.

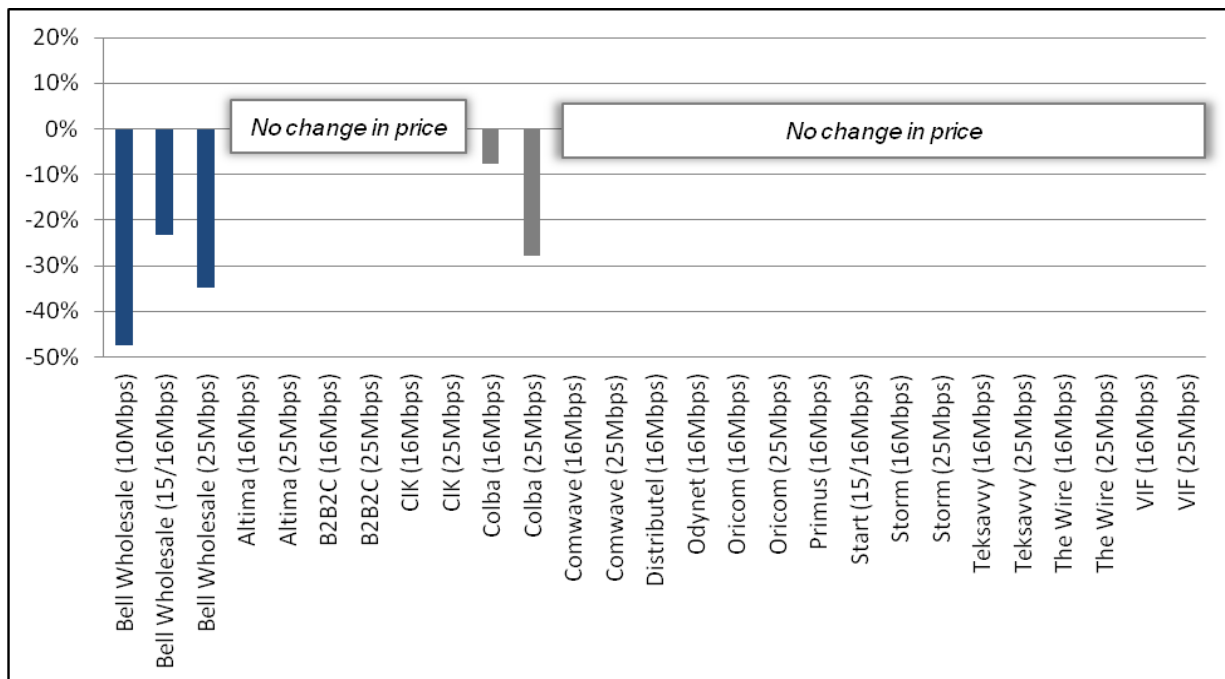
⁶³ Based on responses to _____(Bell Canada)28Mar14-8a.

Figure 3
Impact of Mandated Rate Reductions on ISP Retail Offers
(6 Mbps Business)⁶⁴



50. Similarly, at higher speeds ISPs also do not pass on the benefits of wholesale rate reductions to business customers, as Figure 4 shows.

Figure 4
Impact of Mandated Rate Reductions on ISP Retail Offers
(16 and 25 Mbps Business)⁶⁵



⁶⁴ Based on responses to _____ (Bell Canada)28Mar14-8b.

⁶⁵ Based on responses to _____ (Bell Canada)28Mar14-8b.

51. This situation must be balanced against the significant threat mandated access poses to the roll-out of next generation networks to Canadians over the long term.

3.4 Wireless Services Impose Additional Competitive Discipline

52. In our First Interventions, we noted that wireless voice services are already established as a substitute for wireline voice services for residential and small business customers and that wireless data are increasingly a substitute for wireline data services for residential customers.

53. In 2007, the Commission recognized the growing impact of wireless connectivity on the local service market.⁶⁶ In recognizing this inter-relationship between wireline and wireless phone service, the Commission acknowledged wireless technology as a legitimate form of facilities-based competition, something which is even more the case today, over six years later. Now, with the advent of LTE wireless service, the substitutive impact of wireless technology has rapidly expanded beyond simple voice service. Certainly, by the time the Commission renders its decision in this proceeding in 2015, wireless Internet will have to be considered at least as much a growing substitute for wireline Internet as wireless voice was a growing substitute for wireline voice back in 2007. In the First Intervention of Bell Canada, we provided significant data demonstrating this trend and more recently released data has confirmed it.⁶⁷

54. CNOC has acknowledged that wireless services are a substitute for wireline voice services but claims that "the question of whether these two platforms are substitutable with regards to data services ha[s] yet to be fully examined".⁶⁸ In this regard, CNOC has provided a report from Nordicity that purports to show that wireless data services are not substitutable for wireline data services from a technical or economic perspective.⁶⁹

55. The Nordicity report does not address the contention that we and other interveners have put forward in this proceeding. In particular, its conclusions are based on status quo wireless deployments and offerings rather than the impact that rapid innovation and changes in

⁶⁶ See preamble of the *Local Forbearance Order*, where it says "the use of mobile wireless technology by consumers is increasing and will likely continue to increase, and that for many consumers the exclusive use of mobile wireless services is an increasingly attractive alternative to wireline local exchange services".

⁶⁷ See e.g. paragraphs 10 and 24. According to Statistics Canada, the percentage of wireless-only households increased by 61%, from 13% to 21%, between 2010 and 2013. For households under 35, the number was 60%. See Statistics Canada, Residential Telephone Survey, 2013, available online at <http://www.statcan.gc.ca/daily-quotidien/140623/dq140623a-eng.htm>.

⁶⁸ CNOC Second Intervention, paragraph 29.

⁶⁹ CNOC Second Intervention, Attachment B.

technology will have on competition between wireless and wireline services in the future.⁷⁰ The potential for new technologies to radically change competitive dynamics in a short period is well-established in Canadian communications markets. There once was skepticism that cable telephony could compete with traditional telephony, something that is no longer questioned. Between 2005 and 2012, cable companies increased their share of local access lines by 400%.⁷¹ Between 1997 and 2005, satellite broadcasting distribution undertakings (BDUs) went from effectively not existing in Canada to capturing a 23% share of the BDU market.⁷² In three years, Bell Canada's new Internet Protocol television product went from its first launch to capturing a 10% share across its footprint.⁷³

56. More importantly, the Nordicity report underestimates the current technological capability of wireless services and available wireless service offerings. From a technological perspective, it relies extensively on the findings of a Rysavy Research report regarding typical cellular deployments on a global basis. Unlike in Canada, which is a global leader in the availability of high-speed and particularly LTE wireless networks, typical cellular deployments globally have been focused on coverage rather than broadband delivery. From a service offering perspective, the Nordicity report ignores not just fixed wireless services but also unlimited mobile wireless data plans that are available in the market today, such as the MTS Talk & Surf Unlimited plan currently listed at \$65 per month or the Wind Mobile \$35 a month unlimited plan.⁷⁴ Moreover, two products can be substitutes even if one has higher prices than the other if the higher prices are justified by additional value, such as the ability to access the service anywhere at any time, not just at home.

57. The question is not whether any given user can satisfy their entire broadband demand using the wireless services offered today but rather whether wireless service offerings are a source of competitive discipline on wireline service offerings now and in the future. Nordicity has not addressed this question.

⁷⁰ As the Commission recognized when it first established its market power and market definition analysis in Decision 94-19, "[i]ndustries characterized by rapid innovation in products, processes and technology tend to experience greater price movements and new entry, thereby making it difficult to exercise market power." See Decision 94-19, section III.A.

⁷¹ CRTC, 2009 Communications Monitoring Report, Table 5.2.4 and CRTC, 2013 Communications Monitoring Report, Table 5.2.6.

⁷² CRTC, 2009 Communications Monitoring Report, Table 4.4.1.

⁷³ BCE Third Quarter 2013 Results Conference Call, page 12.
http://www.bce.ca/assets/investors/Q3_2013/Q3_2013_Transcript.pdf.

⁷⁴ The MTS plan is listed at <https://www.mts.ca/mts/personal/wireless/plans/4g-smartphone+plans/talk+&+surf+unlimited+data+plan>. In MTS Allstream(CNOC)31July14-2301 MTS identified this plan as available for \$75 per month.

58. Nordicity's price comparisons assume that all usage is over wireless networks. In fact, our mobility customers have access to over 4,000 free wi-fi hotspots that can be used without contributing to wireless data usage and overage charges. This is in addition to other free wi-fi hotspots available at additional businesses, libraries, schools, and workplaces. Users can increasingly satisfy their broadband demand by relying on a combination of such publicly available wi-fi and personal wireless services. This allows them to substitute away from residential wireline residential broadband services if the prices of those services do not remain competitive.

59. The competitiveness of the wireline broadband market does not depend on wireless services. Indeed, wireless services appear to have played no role in the Competition Bureau's conclusions that the wireline broadband market is competitive. Nevertheless, every major facilities-based wireline broadband competitor has identified the potential for substitution to wireless networks because that is a real, imminent trend affecting their business.

3.5 Aggregated WHSAS and Unbundled Local Loops (ULLs) Are Not Essential

60. Aggregated WHSAS such as Gateway Access Service and Third Party Internet Access services, as well as Unbundled Local Loops to the extent they are used to provide Internet access, are not essential because withdrawing mandated access to them will not substantially lessen or prevent competition in the downstream market for broadband Internet access services⁷⁵. As described in section 3.2, above, the downstream broadband markets are competitive as a result of competition between ILECs and cable companies.

3.6 Our proposed forbearance test

61. Given the competitiveness of retail broadband and the evidence on the record regarding competition between ILECs, cable companies, and wireless providers, we believe that forbearance with respect to aggregated WHSAS and ULLs is appropriate in every geographic market across the country, as some interveners have proposed. Nevertheless, we have at this time proposed forbearance only for urban areas, where there is no doubt there is pervasive independent wireline facilities-based competition as well as more vigorous and diverse wireless competition.

⁷⁵ Or local voice services either, as addressed in Section 5 of these Reply Comments.

62. In order to separate "urban" from "rural" areas, we believe the use of exchange bands, which are classified on the basis of population densities and relative service costs, would be an appropriate proxy. Under this approach, "urban" areas correspond to exchanges assigned to Bands A and B.⁷⁶ Competition in these areas is sufficient to protect the interests of users and therefore aggregated high-speed access services and ULLs are not essential. Consequently, forbearance is warranted under subsection 34(2) of the *Act*. At this stage, we are not seeking forbearance in rural areas.

63. In its First Intervention, Bell Aliant made a different forbearance proposal, under which exchanges that have received forbearance of local residential telephone service on the basis of the presence of a full end-to-end facilities-based competitor (i.e., a service provider that does not rely on wholesale inputs such as ULLs) could be forborne for WHSAS and ULL. Bell Aliant's proposal, however, was conceptually consistent with Bell Canada's as both proposals relied on the presence of a robust facilities-based wireline competitor to the ILEC, supplemented by wireless providers. In practice, applying either Bell Canada or Bell Aliant's forbearance approach should lead to very similar outcomes. Bell Canada's proposal may be simpler to administer but either of our two approaches could be adopted by the Commission.

3.7 CNOC's proposals must be rejected

3.7.1 No Need for Yet Another Mandated Broadband Service

64. In its First Intervention, CNOC proposed a disaggregated DSL service with interconnection in the incumbent's central office (CO) or head-end which it calls Broadband Access Service (BAS). For the same reasons that currently mandated aggregated WHSAS are not essential and should be forborne, it would be inappropriate to mandate BAS.

65. Even if mandated access to broadband services were still necessary to support competition, mandating BAS would not be appropriate. We would need to incur significant costs as we described in detail in Bell Canada(CRTC)28Mar14-21 and -22, notably due to the deployment of additional Ethernet switches and the development of new support systems and processes. This would cost millions and require many months and resources to implement. And these costs would not be offset by significant benefits. When asked by Rogers to describe the service innovations that would be enabled by BAS over existing aggregated high-speed

⁷⁶ See footnote 2 in Telecom Regulatory Policy CRTC 2009-304, *Follow-up to Telecom Decision 2008-105 – Retail quality of service regime in non-forborne markets for ILECs with over 25,000 NAS*, where the Commission distinguishes bands as follows: "Urban areas are generally considered to include rate bands A and B; rural areas rate bands C to F; and remote areas, rate band G".

access services, CNOC noted that removal of bundled transport costs would provide competitors with "greater control over the cost of service inputs", and would allow them to "divert resources that would otherwise be spent on CBB to develop and deploy innovations throughout their operations".⁷⁷ It is hard to see how these represent innovations facilitated by BAS. They are rather cost reduction proposals and attempts to avoid the construction of alternative facilities while imposing significant costs on ILECs and cablecos.

3.7.2 CNOC's Forbearance Tests are Flawed

66. As indicated earlier, we don't believe WHSAS should be mandated at all since they are not essential, and certainly not in urban areas which we submit can be forborne today. In contrast, CNOC has proposed a convoluted test under which the incumbent must demonstrate all of the following:

- there are at least three additional unaffiliated facilities-based fixed line telecommunications service providers offering WHSAS in the relevant market, and capable of serving at least 75% of the number of accesses that the ILEC is capable of serving in that market;
- the incumbents have incurred a 25% wholesale market share loss and at least two independent competitors each have a 5% market share of WHSAS in that market, and
- each incumbent providing WHSAS in that market demonstrates that, during a six-month period, beginning no earlier than eight months before the application for WHSAS forbearance and ending at any time before the Commission's decision respecting the application:
 - it met, on average, the quality of service standard for each indicator to be determined by the Commission for BAS, with respect to the BAS provided to competitors, and
 - it did not consistently provide any of those competitors with services that were below those quality of service standards.

67. This test is unsupported by economic theory. No explanation is provided as to why four independent facilities-based competitors are required to achieve sufficient retail competition. The test also ignores common indicators of competitive dynamics such as barriers to entry, switching costs and rivalry. We asked CNOC's economic experts, the Analysis Group, for their

⁷⁷ See CNOC(Rogers)31Jul14-112.

view on CNOC's proposed forbearance tests and they were unable to support them beyond saying that the presence of competitors is an accepted relevant factor:

CNOC's proposed forbearance tests are built upon measures (e.g., presence of competitors) that are part of the Commission's forbearance tests, or that have been suggested by various parties in past regulatory proceedings.

We are not in a position to assess the proposed forbearance tests beyond the general observations set out above, given that we have not done any detailed market analyses and some aspects of the tests are technical in nature and therefore beyond the scope of our expertise. Ultimately, the details of any specific forbearance test constitute a policy decision.⁷⁸

68. Similarly, the test requires that all four competitors offer wholesale services and that the market share loss be in respect of share in the wholesale market not the retail market. CNOC does not explain why, if there are already four facilities-based competitors, it is necessary that they offer wholesale services. Again, this rejects economic principles and elevates the wholesale market and the interests of CNOC members above the retail market and the interests of consumers. Moreover, market shares (especially wholesale market shares) are not a reliable indicator of retail competition on their own, and it is very likely that competition sufficient to protect the interests of users would be present even without the wholesale market share loss proposed by CNOC.

69. CNOC's proposed test is also unrelated to the Commission's essential facilities definition (and even to CNOC's proposed revisions to it). CNOC's test makes no mention of the use of mandated wholesale services by competitors and of what impact, if any, competitors reliant on wholesale services may have on downstream competition. Accordingly, it neither tries to see if the wholesale service potentially subject to forbearance is required by competitors, nor if its withdrawal will substantially affect downstream competition.

70. In addition to being overly restrictive, CNOC's approach also adds unnecessary workload to the forbearance process. CNOC proposes a proxy test, but then states that competitors must be given the opportunity, in response to an application for forbearance, to tender evidence demonstrating that sufficient competition is not present in the relevant geographic market even if the proxy test is met. In effect, having proposed the test, CNOC wishes to reserve the right to argue that the test is not correct.

⁷⁸ CNOC(Bell Canada)31Jul14-9.

4.0 FTTP

71. A central issue in this proceeding is whether there should be mandated wholesale access to FTTP access infrastructure. The Commission's analysis in this regard must be guided by an application of well-established principles, including the requirement that there be market power in the retail Internet market before applying wholesale regulation, and the principle of essentiality. As discussed elsewhere in these Reply Comments, the overwhelming weight of evidence in this proceeding has shown that the Canadian retail Internet market is vigorously competitive, it is not characterized by the exercise of market power, and based on any objective assessment, newly constructed FTTP facilities do not meet the test of essentiality.

72. As Bell Canada and Bell Aliant pointed out in their Interventions, the healthy state of competition in the retail Internet market is particularly prevalent in those locations where FTTP access facilities have been constructed. This is because, to this point, FTTP infrastructure has been deployed mainly in higher-density markets that have multiple facilities-based service providers. Indeed, it is the presence of vibrant facilities-based competition, and in particular, high-bandwidth cable networks, that has often triggered the deployment of FTTP in the first place, as a competitive response. These are precisely the circumstances where market forces create robust competition, and where regulatory intervention in the form of mandated WHSAS is least needed.

i) Investment Effects

73. In our Interventions, we addressed why, regardless of what decision the Commission reaches regarding wholesale access to legacy technologies (such as DSL/FTTN and DOCSIS), mandated wholesale access to FTTP would be unwarranted and harmful. As the leader in FTTP deployment in Canada, Bell Aliant, in particular, focused its Interventions on this particular issue.

74. To recap briefly, we highlighted the economic theory and evidence as to how and why mandated wholesale access harms network investment. Other parties such as Rogers, Telus and the FTTH Council have also provided expert economic testimony in support of this proposition⁷⁹.

⁷⁹ See for example the paper "The Incentive Effects of Wholesale Unbundling Regulation on Investment" by Scott Wallsten, filed as Appendix 2 to Rogers' First Intervention, the paper "The Effects of Mandated Network Unbundling on FTTP Deployment" by Robert W. Crandall, filed as Appendix B to Telus' First Intervention, and the paper "Economic Lessons from the U.S. Unbundling Experience" by Hal J. Singer, filed as Exhibit 1 to the Intervention of the Fiber to the Home Council Americas.

77. The adverse effect of mandated wholesale regulatory policy on investment is not just idle speculation or unproven theory. In our interventions, we and other parties reviewed some of the international evidence, which is very instructive on this point. As we discussed in detail in our Interventions and elsewhere in these Reply Comments, there is now an overwhelming amount of evidence on the record of this proceeding demonstrating how Europe, with its interventionist regulatory policies mandating wholesale access to next generation technologies, has failed to achieve the desired level of new high-speed broadband capital investment and network deployment. This can be contrasted with the U.S. where policy makers long ago specifically refrained from wholesale regulation in order to encourage investment.⁸²

78. As the FTTH Council summarized in its First Intervention:

The Council's work has informed the consideration of unbundling in the U.S., where policy makers acknowledged more than a decade ago that unbundling of fiber network facilities would lead to less investment and slower deployment of fiber to the premises ("FTTP") and delay introduction of advanced fiber-based services. Specifically, the FCC decided over ten years ago to not require unbundling of physical fiber network facilities of incumbent carriers – or the equivalent (e.g., wholesale access to fiber bit streams) – at cost-based prices intended to reflect "fully competitive" markets. This has led both to dramatically increased deployment of FTTP by incumbents and others and to more robust competition in advanced services for consumers.

There is every reason to expect the same outcome in Canadian markets if the CRTC follows the U.S. approach. The Council thus submits that, if the CRTC wishes to propel investment in all-fiber networks and foster competition for the provision of ultra-high speed broadband and other services in Canada, it should not mandate unbundling of FTTP facilities by incumbent local communications providers. In fact, because deployment of FTTP technology is fundamental to drive economic growth, social interaction, and citizen engagement in today's economy, government policy makers should actively encourage and facilitate its deployment by incumbents and competitors alike⁸³.

79. In an attempt to translate well accepted economic principles into concrete terms, Bell Aliant undertook and filed in its Second Intervention some very detailed financial analysis which demonstrated how mandated wholesale access would have negatively affected its business

⁸² See the expert reports referred to in footnote 80 above. See also Robert Hahn, Giacomo Luchetta and Andrea Renda, "Incentives to Invest in the EU Telecoms Market: Lessons from Broadband Regulation", filed as Attachment 3 to Bell Aliant's First Intervention; Brian N. Tramont et al., "Telecommunications competition in the US: An assessment of wholesale regulatory policy and its consequences", filed as Attachment 2 to Bell Aliant's First Intervention; Boston Consulting Group, "Reforming Europe's Telecoms Regulation to Enable the Digital Single Market", referred to in paragraphs 21 to 24 of Bell Aliant's Second Intervention; Christopher S. Yoo, "US vs. European Broadband Deployment: What Do the Data Say?", referred to in paragraph 25 of Bell Aliant's Second Intervention; Rosalyn Layton, "The European Union's Broadband Challenge", referred to in paragraph 28 of Bell Aliant's Second Intervention.

⁸³ Summary section, pages i to ii.

case for its 2014 FTTP investment program. For this analysis, Bell Aliant applied its location-specific footprint prioritization model used for business decision making purposes to 21 locations that had proved feasible to expand to in its 2014 FTTP capital build program. The analysis took the business case for FTTP investment for these communities, which assumed there would be no wholesale access to FTTP, and then reversed that assumption to determine how the introduction of mandated wholesale access would affect the business case for investment. The wholesale scenario modelled assumed a mandated aggregated wholesale Internet service, which, in effect, mirrors the wholesale GAS service currently offered by ILECs over DSL/FTTN technology.

80. The results of the analysis revealed that the introduction of mandated wholesale access to FTTP facilities would have increased the discounted payback period and reduced the Net Present Value (NPV) for the 21 communities substantially. In fact, the NPV would have become negative for a number of communities, meaning that FTTP investment in those communities would be expected to have been uneconomic.

81. This analysis illustrates that an already difficult business case for investing in FTTP becomes even more challenging and risky under a mandated wholesale access scenario, based on reasonable, and in many cases conservative, assumptions. In fact, there are a number of assumptions in the analysis which, if less conservative, would cause a greater negative impact and cause more communities to have a negative NPV.

82. In this proceeding, Bell Aliant has also provided a real life example illustrating how risky a venture FTTP investment is at the best of times, and how changes in the investment environment can actually lead to a reversal of investment decisions. As outlined in Bell Aliant's Second Intervention, during the course of its Ontario FTTP deployment, it encountered delays and additional costs that were not contemplated in its original business plan. Despite extensive efforts to overcome these issues, a solution was not found and, as a result, earlier this year, Bell Aliant made the decision to halt its FTTP roll-out in Sault Ste. Marie, leaving its roll-out far short of announced plans and serving as a stark illustration of the fragility of the FTTP business case.

83. That changes in the regulatory environment can affect investment decisions was illustrated by the depressed levels of investment across the industry following the introduction of mandated CDN, and the cancellation or suspension of fibre builds by Northwestel following the introduction of mandated access to its Wholesale Connect service at rates that were too low.

Both events are more fully described in section 2.3.3.1 and 2.3.3.2 of Bell Canada's First Intervention.

84. One of the factors contributing to the challenging economics of the FTTP business case is the fact that the economics of investing in FTTP rely in large measure on winning the "broadband home". We note that the Joint Task Force (JTF), on behalf of its SILEC members, reached a similar conclusion, stating as follows:

JTF member feedback also confirms that the business case for installing FTTP facilities simply does not work if revenue for three services (i.e. voice, television and high-speed Internet access) is not realized...The JTF believes that if potential wholesale rates that would be set for access to a SILEC's FTTP facilities using Phase II incremental costs are not close to the ARPU of the retail rates for a three service bundle of voice, television and high-speed Internet access that FTTP projects would not be feasible. Lower wholesale rates would also extend the already lengthy pay back periods for existing FTTP projects.⁸⁴

85. The clear consensus of these parties, which like us have direct experience in FTTP investment, is that the business case for FTTP investment is dependent on winning the broadband home. This is due in part to the large up-front capital investment required before any revenues are realized.

86. Some interveners in this proceeding have contended that mandated access to FTTP facilities would not harm FTTP investment, arguing that such investment is necessary for ILECs to remain competitive with the high-bandwidth offerings of cable operators. This argument is simplistic and not supported by any detailed facts or analysis. It ignores how capital spending decisions are actually made, and assumes that service providers have no regard to the economic returns to be earned from their investments. Every capital dollar spent must be justified based on maximizing expected returns. Investment opportunities returning the greatest benefit to the risk-taker are chosen over those that yield less benefit. As demonstrated in Bell Aliant's financial analysis, investments in FTTP would become less attractive as a result of mandated wholesale access, and therefore capital spending would tend to flow away from FTTP deployment in favour of other capital priorities. Uneconomic FTTP investments would not be undertaken, particularly in higher cost areas, just for the sake of providing competition. Under such a scenario, it would be the consumer that would be most negatively affected.

⁸⁴ JTF(Bell Aliant)28Mar14-2.

87. There has been no compelling evidence in this proceeding to challenge the proposition that mandated wholesale access creates a disincentive for infrastructure investment. CNOC retained the services of the Analysis Group to address the issue, but these experts were unable to positively assert that mandated access did not negatively affect investment in facilities. Indeed, the strongest conclusion the Analysis Group could advance was that "no clear consensus view on the relationship between regulation and industrial policy has emerged yet"⁸⁵, and this conclusion was largely based on a dated 2009 study conducted by Cambini and Jiang which itself had no solid determinations, finding that "the picture that emerges is not conclusive, and further research is needed, both theoretically and empirically, to better understand the real impact of regulatory incentives on investment".⁸⁶ However, five years later, with the benefit of much more observation and analysis, there is broad acceptance of the proposition that unwarranted wholesale access does hurt investment. In fact, the Analysis Group all but admits this when stating "[I]n Europe, for example, the focus of competition policy in the telecommunications industry appears to have shifted towards dynamic efficiency after a strong, decade-long emphasis on static efficiency following the liberalization of European telecommunication markets"⁸⁷, and also pointing out how the "European Commission's 2012 announcement to overhaul regulatory policy addresses specifically the need to promote investment in high-speed infrastructure, and the need to provide regulatory stability and consistency over time".⁸⁸

ii) FTTP Warrants a Unique Regulatory Approach

88. In our Interventions, we identified certain characteristics of FTTP that warrant a unique regulatory approach to FTTP:

89. First, with FTTP access networks, there is no incumbency advantage; in fact there are no "incumbents". Each new FTTP access network is essentially built from the ground up, without reliance on legacy components. The fact that FTTP access networks do not rely on legacy network components is amply demonstrated by the fact that many "non-incumbent" service providers in Canada have built or are building their own FTTP access networks, including within our own ILEC serving territories (for example, Vianet, Wightman, Execulink or Novus Entertainment).

⁸⁵ Analysis Group Report, paragraph 36.

⁸⁶ Analysis Group Report, paragraph 35.

⁸⁷ Analysis Group Report, paragraph 34.

⁸⁸ Analysis Group Report, paragraph 34

90. A second distinguishing feature of FTTP networks is that the final leg (or "drop") connecting the premises to the network is not constructed unless and until the customer in the premises opts to subscribe to the services delivered over the FTTP facilities. So not only is the FTTP access network not reliant on legacy components, but, if wholesale access were mandated, a significant portion of the network to be accessed would not yet exist. Access to legacy networks has its origins in the notion of overcoming an incumbency advantage originally stemming from monopoly power. It would seem to turn that notion on its head if access were mandated to FTTP. Not only is the FTTP access network brand new and not reliant on legacy components, but, if wholesale access were mandated, a significant portion of the network to be accessed would only be built by ILECs at the behest of competitors if and as competitors gain customers.

91. In its Second Intervention, CNOC has attempted to partially defuse this distinguishing feature by proposing that independent ISPs be financially responsible for the connection from the street to the customer's premises. Under CNOC's proposal, when a non-incumbent ISP wins a retail customer, that ISP would either build the fibre drop or, if the customer was already connected via an "incumbent" drop, the ISP would buy the drop wire and related equipment from the "incumbent". CNOC further proposed that in the event the customer subsequently changes its service provider to another ISP that is not an "incumbent", the new provider of service would acquire ownership of the fibre drop and related equipment from the ISP.

92. This proposal is unprecedented and unworkable and would do nothing to improve the financial case for incumbent investment in FTTP facilities. The reasons for this are discussed in detail in Bell Canada(CRTC)31Jul14-8. Other parties have also pointed out why such a proposal could not work in practice.⁸⁹

93. CNOC's proposal is also fundamentally inequitable in that it would force an incumbent to sell the fibre drop and associated customer premises equipment to a competitor ISP, but not vice versa (unless the competitor ISP was itself an "incumbent"). In other words, there would be no right to force a non-incumbent ISP to sell the fibre drop and related equipment to a

⁸⁹ See responses to _____(CNOC)31Jul14-8 filed by MTS Allstream ("this proposal has a number of serious drawbacks", and "MTS Allstream believes that such an approach would constitute illegal expropriation of private property. On this basis, we question whether the Commission even has the jurisdiction to mandate the transfer of ownership between service providers. In our estimation it does not and CNOC's proposal is a non-starter on this basis alone."); SaskTel ("operationally this would create many issues"); and Telus ("considers it infeasible and undesirable for a number of reasons", and noting that "Implementation of the CNOC proposal would require that the Commission have jurisdiction to order a Canadian carrier to sell its telecommunications facilities or construct them on behalf of others. Telus has found no such authority in the *Telecommunications Act.*")

subsequent competitor that has won the end customer. Not only is this clearly inequitable, it would also limit consumer choice.

94. Moreover, it does not appear that the Commission has the legal jurisdiction to implement the model as proposed by CNOC. When asked to explain the legal basis for such a regime in CNOC(Bell Aliant)31Jul14-5, CNOC stated that the Commission has authority to do so under sections 24, 27(1) and 27(2) of the *Act*.

95. These provisions prescribe powers in relation to the offering and provision of telecommunications services. They do not pertain to facilities, yet the very substance of CNOC's proposal relates to forced divestiture or forced construction of facilities. Nothing in the wording of sections 24 or 27 supports CNOC's claims of jurisdiction. CNOC has also failed to cite any supportive case law. The authority relied upon by CNOC to justify its drop proposal is dubious at best (a view also shared by Telus and MTS Allstream).⁹⁰

96. Also, once a customer is connected to an FTTP network, recovery of the significant upfront costs of connection is dependent upon retaining that customer for a sufficiently long period to recoup the investment. Where a customer cancels FTTP service before the investment is fully recovered, we bear the expense as a risk of the business. Under a mandated wholesale access scenario, however, we could bear the risk of the wholesale ISP's customer cancelling service (e.g., a wholesale ISP could run a very successful promotion whereby many customers sign up but only keep the service for a few months). While we accept that we must bear the risks associated with serving our own customers, under no circumstance should we be required to bear the financial risk of our competitors' businesses.⁹¹

97. As a result of the factors described above and in our Interventions, FTTP facilities are very expensive to construct, with risky and long payback periods. Our FTTP projects were not a legacy upgrade, but rather an entire new access network build. Moreover, to date, our FTTP deployment has been carried out in areas which present the most favourable business case (generally the more dense areas served by aerial plant). During its FTTP launch and roll-out, Bell Aliant hit its highest capital intensity ratio in its very long history. While this level of cash

⁹⁰ MTS Allstream(CRTC)31Jul14-8 and Telus(CRTC)31Jul14-8.

⁹¹ We note that CNOC has submitted a proposal in its Second Intervention that relates to this risk. However, for the reasons discussed in paragraphs 91 to 93 above, CNOC's proposal does not provide a realistic solution to the allocation of risk between the incumbent and ISPs.

drain is unsustainable over the long term, it illustrates the magnitude of the capital investment and risk undertaken.

iii) Regulatory symmetry between FTTP and Cable

98. Some cable operators in this proceeding have argued that it would be inappropriate to have cable networks subject to mandated wholesale access, if FTTP infrastructure is not, as this would violate the principle of regulatory symmetry. First, this issue is largely academic if the Commission accepts our proposal to forbear from regulation of WHSAS in urban areas generally. If the Commission accepts this position, neither ILEC or cable networks, regardless of technology, would be subject to mandated wholesale high-speed access obligations, at least in urban areas.

99. More importantly, however, there is no inherent asymmetry in our overall proposal for the regulatory treatment of FTTP access networks, even if the Commission chooses to continue to mandate access to legacy networks. It should be noted that some cable companies are currently deploying FTTP networks⁹², although it is admittedly "early days", and nothing stops them from FTTP deployment in the future. Under our proposal, regardless of the Commission's treatment of legacy DSL/FTTN and DOCSIS networks, no FTTP access networks provided by any party, including cable operators, would be subject to mandated wholesale access. As a result, the regulatory treatment of FTTP networks is symmetrical under our proposal.

100. We strongly oppose any notion that mandated wholesale access should apply to FTTP facilities if wholesale access to DOCSIS networks remains mandated. Cable networks primarily consist of legacy infrastructure, even though they may undergo periodic upgrades. In contrast, as discussed earlier, FTTP access infrastructure is entirely new, from the CO all the way to the customer premises, with no legacy components (other than perhaps support structures, which of course can be accessed by all services providers under tariff). In any event, the public policy interest in encouraging the deployment of FTTP facilities is significant. According to the 2014 Communications Monitoring Report, only approximately 14% of Canadian households have access to 5 Mbps broadband services over FTTP, indicating that the deployment of this technology is truly in a nascent state. The imposition of mandated wholesale FTTP access when this infrastructure largely hasn't even been built yet, coupled with the already risky business case associated with FTTP investment, would inevitably deter and reduce future FTTP deployment, harming competition and Canadian consumers.

⁹² See Rogers, Shaw and Cogeco responses to (CRTC)15Oct13-201 and -202.

iv) Conclusion regarding FTTP

101. In light of all of the considerations outlined in these Reply Comments and in our Interventions, the case against mandating wholesale access to FTTP is compelling. In many ways, the Commission is rather uniquely and advantageously positioned as this proceeding has come at a time when it can benefit from a variety of evidence and real life experience, including:

- i. a multitude of economic evidence tendered in this proceeding supporting the view that mandated wholesale access is harmful;
- ii. the adverse effects such access has actually had on investment in Europe, in contrast to the U.S. experience where such mandated access was deliberately avoided;
- iii. Bell Aliant's actual experience with substantial FTTP roll-out, including:
 - A. Its business modelling which demonstrates in concrete terms what adverse effects mandated access, had it been in effect, would have had on Bell Aliant's 2014 FTTP program;
 - B. Its experience in Ontario where unanticipated hurdles caused it to abort an FTTP project midstream, demonstrating in real terms the fragility of the business case for FTTP builds.
- iv. The recent CDN and Northwestel rulings affecting investment decisions.

5.0 LOCAL VOICES SERVICES MUST NOT BE MANDATED

102. In Bell Canada's First Intervention, we explained that cable and wireless telephony have expanded in rivalry with the traditional wireline voice services, significantly and steadily reducing ILEC market shares and rendering ULLs a largely irrelevant input for competition in voice services.⁹³ As demonstrated by the Commission's annual Monitoring Report data, between the end of 2006 and the end of 2013 loop use by competitors fell from 19% of residential customers to only 1.5%. No participant in this proceeding seriously disputed these conclusions. Nevertheless, CNOC has claimed that ULLs must remain mandated because they are "the only means of providing traditional wireline voice services other than pure resale".⁹⁴ The fact that some competitors have adopted a business model that favours the provision of traditional telephone service through use of unbundled components is not a valid economic or public policy justification for ongoing Commission intervention. From a consumer's perspective, the voice services market comprises services provided through traditional telephone and cable

⁹³ See Bell Canada First Intervention, paragraphs 160 to 184.

⁹⁴ CNOC Second Intervention, paragraphs 69 and 70.

infrastructure, VoIP services and wireless services, and what matters is that this market is highly competitive.

103. Subsection 34(2) of the *Act* requires the Commission to forbear when a service is, or will be, subject to competition sufficient to protect the interests of users, which is the case here.

6.0 ETHERNET AND COMPETITOR DIGITAL NETWORK (CDN) MUST NOT BE RE-REGULATED

104. In 2008, the Commission decided to forbear from regulating a variety of wholesale services (e.g., CDN and Ethernet) used by competitors to provide large enterprises with powerful data connectivity services as well as backbone networks used by competitors in their retail business offers (in this section, the "Phase-Out Services"). The Commission found that fibre-based access and transport services, along with low-speed transport CDN services, were non-essential since they were duplicable by competitors. They were thus set on a forbearance path, effective in 2011 and 2013 depending on the service. Decision 2008-17 specifically indicated that, given the non-essential nature of the Phase-Out Services, the removal of mandated access "will not be likely to impair unduly the establishment or continuance of a competitive market for those services."⁹⁵

105. Six years later, certain parties in this proceeding argue (again) for the re-regulation of these services, even going so far as requesting the introduction of new wholesale Ethernet services which have never been mandated⁹⁶. Yet these parties have failed to provide evidence indicating: 1) that Phase-Out Services are not duplicable or 2) that the Commission's forbearance of the Phase-Out Services has had any negative impact on downstream competition. The Commission should stay the course it set in 2008 for fibre-based services and maintain their forborne status.

106. In this section, we will first discuss the legal test that the Commission must assess before rolling back a forbearance decision. We then turn to a review of the evidence on the record that indicates that the Phase-Out Services must continue to remain forborne. We close with a critique of CNOC's proposed forbearance criteria for the Phase-Out Services.

⁹⁵ Decision 2008-17, paragraph 188.

⁹⁶ See paragraphs 17 and 18 of MTS Allstream's Second Intervention which proposes the introduction of a wholesale-specific Ethernet Access service (which has never been required of most ILECs) as well as new Ethernet transport and metro services which differ from those in existence at the time of Decision 2008-17.

i) Test for Re-regulation

107. Reversal of forbearance is exceptional in Canada. To date, we are aware of only a single instance where the Commission introduced tariffs for a previously forborne service, and this was in respect of Northwestel's retail Internet service in TRP 2013-711.⁹⁷

108. In TRP 2013-711, the Commission explained that "in order to determine whether the sections of the Act that were the subject of forbearance should be reapplied in whole or in part, the evidence should demonstrate that the circumstances that gave rise to forbearance have changed to such an extent that the Commission's original findings are no longer consistent with section 34 of the Act".⁹⁸

109. The burden lies on the proponents of re-regulation to prove their case and to submit compelling evidence that circumstances have changed so much that the Commission's original forbearance is no longer appropriate. This is consistent with how requests for forbearance are dealt with – the default state for telecommunications services is regulation until sufficient evidence convinces the Commission to forbear. Similarly, the default approach for forborne services should be continued forbearance unless sufficient evidence convinces the Commission that re-regulation is required. Indeed, subsection 34(3) provides that the Commission should only refrain from forbearance if it finds as a question of fact that forbearance is "likely to impair unduly the establishment or continuance of a competitive market". After all, economic regulation is meant to correct market failures. Incumbent providers should not be held to the burden of having to prove the absence of any problems. As the evidence on the record shows, and is summarized below, the Commission's findings in Decision 2008-17 regarding duplicability and retail competition absent mandated wholesale access to the Phase-Out Services remain valid today – the circumstances that gave rise to forbearance have not changed.

110. Moreover, in respect of the Phase-Out Services, the Commission has retained its ability to address unjust discrimination or undue preference allegations under subsection 27(2) of the Act. Indeed, should there be any need for intervention, the Commission can use subsection 27(2).

⁹⁷ Telecom Regulatory Policy CRTC 2013-711, *Northwestel Inc. – Regulatory Framework, Modernization Plan, and related matters* (TRP 2013-711), issued 18 December 2013.

⁹⁸ Decision 2013-711, paragraph 211.

111. At a broader level, we also note that wholesale re-regulation would have serious implications on the industry. While there was limited investment in competitive facilities during the period fibre high-speed access and CDN transport services were regulated, competitors and incumbents alike have made additional investment decisions in response to the Commission's decision to forbear from these services. Re-regulation (and associated mandated rates) would create investment uncertainty and punish those industry participants that have invested in facilities.

ii) *Forbearance was and remains appropriate: Duplicability*

112. In Decision 2008-17, the Commission found that fibre-based access and transport services, along with low-speed transport CDN services, were non-essential since they were duplicable by competitors. Decision 2008-17 specifically also indicated that, given their non-essential nature, the removal of mandated access "will not be likely to impair unduly the establishment or continuance of a competitive market for those services".⁹⁹

113. Examining in more detail the duplicability aspect, the 2007 record indicated a high incidence of competitor self-supply or alternative supply for these services. This finding was confirmed when the Commission rejected an MTS Allstream review and vary on the issue.¹⁰⁰ This decision was further confirmed by the Governor-in-Council following an appeal by MTS Allstream.¹⁰¹ The wide-spread availability of fibre-based alternatives was further confirmed, as recently as 2012, in a Commission decision on certain related applications by MTS Allstream, where the Commission rightly noted that there has been additional competitor investment in these kinds of facilities since Decision 2008-17.¹⁰²

114. The Commission chose, in Decision 2008-17, to make its forbearance determinations on a national basis in order to simplify the regulatory process. This approach can be appropriate where the key factors in the analysis, such as the availability of alternatives and costs, are consistent across local or regional geographic markets and thus the same conclusion will be reached when taking a national view.¹⁰³ Duplicability, under the Commission's essential

⁹⁹ Decision 2008-17, paragraph 188.

¹⁰⁰ Telecom Decision CRTC 2008-118, *Application to review and vary certain determinations in Telecom Decision 2008-17 regarding the classification of wholesale Ethernet services*, which was subsequently confirmed further by the Government in PC Number 2009-2006, issued 10 December 2009.

¹⁰¹ PC Number 2009-2006, issued 10 December 2009.

¹⁰² Telecom Decision CRTC 2012-520, *Bell Aliant Regional Communications, Limited Partnership / Bell Canada and MTS Allstream Inc. – Applications regarding Ethernet services* (Decision 2012-520), paragraph 22.

¹⁰³ Note that taking a national view for practical purposes, reflecting the aggregation of similar local circumstances, does not mean that the market itself is national (i.e., that a supplier can use a British Columbia facility to economically provide service to a customer premise in Newfoundland) nor that a supplier must offer facilities everywhere across the nation (as MTS Allstream incorrectly argued in the proceeding leading to Decision 2008-118).

facilities test, refers to the fact that a reasonably efficient competitor could replicate the wholesale service.

115. With respect to fibre-based access services and CDN transport, the Commission's duplicability findings were not limited to any particular geographies or set of circumstances. Rather, we believe the Commission understood that these facilities can be built (or leased from multiple providers) anywhere local demand exists. Indeed, where local demand for Phase-Out Services exists, facilities can be built or leased from competitors. In the incumbent territories of Bell Canada and Bell Aliant in Quebec and Ontario, co-located competitors have access to alternative transport facilities for 92% of the customers addressable by their co-location choice.¹⁰⁴ This indicates that competitive transport facilities are deployed, and available, in virtually every wire centre where there exists competitor demand for them. This figure is not unique: in the incumbent territories of Telus and MTS Allstream, competitive transport facilities reach 88%¹⁰⁵ and 78.5%¹⁰⁶ respectively. Where there is competitor demand, alternatives have thus been built and are available. Contrary to MTS Allstream's position, duplicability is possible, and prevalent. The Commission's repeated duplicability findings are in no way undermined by the fact that competitors have, unsurprisingly, not built facilities where there was no demand for these.

116. That alternative fibre facilities can and have been built, where demand exists, is also illustrated by the proportion of relevant commercial buildings into which competitors have deployed fibre. By its own admission, MTS Allstream and other competitive access providers have "approximately 35,000 unique, on-net (~12,000) or near-net (23,000) buildings" connected with fibre or service-ready.¹⁰⁷ MTS Allstream, relying on its estimate that there are 350,000 commercial buildings in Canada, concludes that competitor fibre presence is thus limited to only about 10% of commercial buildings.¹⁰⁸ MTS Allstream's conclusions are fundamentally flawed.

117. In order to assess the prevalence of fibre-based competitive alternatives for commercial end-users, the analysis must focus on those buildings where fibre-based services are or could reasonably be demanded. Most small businesses, and most commercial buildings, have no need for OC-12, high-speed Ethernet services or other access services provisioned exclusively over fibre. Competitors may not have built fibre to convenience stores, hair salons or dry

¹⁰⁴ Bell Canada(Primus)28Mar14-24.

¹⁰⁵ Telus(Bell Canada)28Mar14-1.

¹⁰⁶ MTS(Bell Canada)28Mar14-2.

¹⁰⁷ MTS Allstream(Bell)28Mar14-10.

¹⁰⁸ MTS Allstream First Intervention, paragraph 52.

cleaners, but neither have incumbents. For instance, in Ontario and Quebec, we only have fibre into approximately # of all commercial buildings¹⁰⁹. To be meaningful, the number of commercial buildings reached through fibre by competitors must be contrasted with the number of commercial buildings reached by fibre by the incumbents.

118. The Commission is able to compile a good picture of how many commercial buildings are connected by incumbent fibre across Canada through the various responses to _____(CRTC)31Jul14-1. In the meantime, we are able to develop an estimate of the percentage of access fibre duplication in our territory. Assuming that the 35,000 competitive fibre buildings identified by MTS Allstream are distributed across the country in proportion to provincial population, we would expect that roughly 60% of these 35,000 competitor fibre accesses would be located in Ontario and Quebec, which amounts to 21,000 unique buildings fibre-fed by competitive facilities. We realize this is an estimate, but contrasting 21,000 unique competitor buildings with the # commercial buildings that Bell Canada has fibre into in these two same provinces¹¹⁰, competitor duplication is unquestionable. Far from indicating a lack of duplication, MTS Allstream's database of competitive fibre accesses confirms what we have said all along: duplication is widespread. Where there is demand, competitors have (and can) deploy facilities. Fibre facilities are clearly not essential.

iii) Forbearance was and remains appropriate: No Harm to Downstream Competition

119. The Commission's approach to assessing the competitiveness of a market is set out in Decision 94-19 and is consistent with the Competition Bureau's *Merger Enforcement Guidelines*. The approach considers the market shares of each competitor, evidence of rivalry, entry, and expansion, and the extent of innovation and technological change. By all of these measures, competition has actually increased since 2008 as competitors invest in more facilities to improve their cost structure and better differentiate themselves from the ILECs.

120. MTS Allstream nevertheless argues that the Phase-Out Services should be re-regulated in order to benefit retail business competition. It, however, provides no evidence indicating that forbearance of the wholesale Phase-Out Services has had any negative impact on retail prices and business customers. MTS Allstream simply submits that: 1) in-territory incumbents have maintained a high retail market share and 2) competitors are forced to pay significantly higher

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¹⁰⁹ Bell Canada(CRTC)31Jul14-1 – figures include Bell Canada and Bell Aliant Central.

¹¹⁰ Bell Canada(CRTC)31Jul14-1.

prices for the Phase-Out Services. Neither of these two arguments withstands scrutiny. There is no evidence showing that wholesale alternatives ceased being available to competitors on reasonable terms.

121. As part of Bell Canada's First Intervention, we submitted an expert report from Margaret Sanderson of Charles River Associates¹¹¹ in which she conducts a detailed economic analysis of the available data regarding the services forborne in Decision 2008-17 to determine whether competition in the downstream business data services was harmed as a result of forbearance. She finds that it was not.

122. The Sanderson Report begins by considering what took place when, as expected, Bell Canada raised its CDN wholesale rates from regulated levels following forbearance. Based on the economic theory of raising rivals' costs, the report notes that "[c]ompetition in the downstream business data services market might be substantially lessened if rival TSPs that were relying on the forborne CDN services became less effective competitors or if the CDN rate increase forced rival TSPs to increase rates to their business customers."¹¹²

123. The Sanderson Report finds that our total CDN and digital network access (DNA) revenues did not increase immediately following forbearance and indeed began to fall shortly thereafter. This is because competitors were now competing effectively using alternative facilities (a pro-competitive outcome), as more than 90% of the retail circuits we lost were subsequently serviced on a competing network.¹¹³ However, the Sanderson Report also examined whether Bell Canada's wholesale results could be attributed to our gaining share in downstream markets (potentially a cause for concern). Using data available in the Commission's 2013 Communications Monitoring Report, the Sanderson Report finds that Bell Canada's share in the downstream markets has not increased and in fact has declined by up to nine percentage points in some cases.¹¹⁴ It also finds that retail prices have not increased.¹¹⁵

¹¹¹ Bell Canada First Intervention, Attachment 4 (Sanderson Report).

¹¹² Bell Canada First Intervention, Attachment 4, page 3.

¹¹³ See Sanderson Report at page 23. We expanded on the Sanderson Report's comment that "Bell only gains a wholesale data circuit for a lost data retail circuit less than ten percent of the time" to indicate that our analysis looked at DNA, Digital Private Line Service, Ethernet Internetworking, Wavelength/Bandwidth Service and other legacy services at retail, and looked at their wholesale equivalent including CDN and EAS (which is classified as a retail service but whose customer base consists entirely of wholesale customers). This confirms the broad application of the Sanderson Report's conclusion that more than 90% of the retail circuits lost by Bell Canada are subsequently serviced on a competing network to the Phase-Out Services. See Bell Canada(MTS Allstream)28Mar14-5.

¹¹⁴ See Sanderson Report, Figure 12.

¹¹⁵ See Sanderson Report, Attachment 4, page 26. Professor Sanderson also confirmed that her conclusions regarding retail competition remained valid whether the analysis looked at large enterprise customers only or was extended to all business customers. See Bell Canada(MTS Allstream)28Mar14-7 and -8.

124. Information placed on the record or made available after Bell Canada's First Intervention strengthens the Sanderson Report's conclusions:

- The Commission's 2014 Monitoring Report indicates that the retail data service revenue market share of incumbent TSPs for new data protocols (which include Ethernet and CDN/DNA services) has fallen from 52% to 49% between 2011 and 2013, consistent with our view that incumbents were not able to gain market power with the forbearance of the Phase-Out Services.¹¹⁶
- Our forborne retail Ethernet rates have fallen (holding service speed constant)¹¹⁷. Consumers are getting better value and benefiting from competition today.
- Our Ethernet retail revenues were # # between 2011 and 2013¹¹⁸ in line with total industry revenues¹¹⁹.
- To give a sense of market dynamics, we conducted a review of the in-service base on CDN components that became forborne (High-Speed Access, Channelization and Low Speed Intra) and found that only # of the demand in place today was sold at the "high" monthly rate, and these typically are associated with customers with low volumes. In contrast, # of the demand is provided at a negotiated discount which, #
. We also note that the services provided to those customers benefiting from discounts #
#.¹²⁰
- This result is corroborated on the record by Fibernetics who, despite raising concerns about prospective price increases in its First Intervention, nevertheless indicated in response to an MTS Allstream question that:

Following price increases resulting from forbearance, in many cases Fibernetics entered into commercial arrangements to negate the impact of those price increases, thus, demand would have stayed about the same.¹²¹

- This summer, MTS Allstream further announced new IP customer wins across Canada with "nationally recognized brands such as Shoppers Drug Mart, Mark's Work Wearhouse, Heart and Stroke Foundation of Canada, Nespresso Canada,

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¹¹⁶ Sanderson Report, Table 5.4.4.

¹¹⁷ Bell Canada(CRTC)28Mar14-26.

¹¹⁸ Bell Canada(CRTC)31Jul14-4.

¹¹⁹ CRTC Monitoring Report 2014, Table 5.4.2.

¹²⁰ Bell Canada(CRTC)28Mar14-23.

¹²¹ Fibernetics(MTS Allstream)28Mar14-1, -2 and -3

Torstar Corporation as well as with Alterra Power Corp, Caledon Capital Management, Nexus Systems Group Inc., Ogilvie LLP, Qualcomm Technologies and Teachers Life Insurance Society"¹²². More recently, it also boasted a "fourth consecutive quarter of significant growth in the number of business customers choosing to connect to its Canada-wide fibre optic IP network" highlighted by new contracts with notably Canadian Tire Corporation Limited and Yellow Media Limited (Yellow Pages).¹²³

125. Summarizing the analysis, the Sanderson Report concludes:

[I]f downstream markets were less competitive after forbearance, we should find that Bell has been charging higher retail prices and/or increasing its volumes as rival suppliers become less competitive. In fact, the opposite has occurred.¹²⁴

As forbearance has not led to a substantial lessening of competition in the supply of data services to business customers, the forborne Ethernet and CDN access and transport services cannot be considered essential. The Commission was correct in 2008 when it classified these services as non-essential. They remain non-essential today and should not be subject to reregulation.¹²⁵

126. With more competitive supply today than in 2008, alternatives to the ILECs' CDN and Ethernet transport and high-speed services are even more prevalent, leading to more consumer choice and more competition for their business.

iv) CNOC's Proposed Forbearance Criteria for Ethernet and CDN services

127. In its Second Intervention, CNOC proposes a series of forbearance tests for CDN and Ethernet access and transport services. These share the same fundamental problems associated with CNOC's proposed forbearance criteria for WHSAS, which we discussed at length in section 3.7.2. We will not repeat them here, but we submit that CNOC's CDN and Ethernet tests are equally flawed and should too be dismissed.

v) Treatment of Cable

128. With respect to Ethernet and CDN services, we note the following statement from CNOC at the tail end of its response to CNOC(CRTC)31Jul14-24:

¹²² MTS Allstream press release of 29 April 2014, available at <http://www.allstream.com/about-us/news/allstream-new-ip-customer-wins-continue-to-grow-across-canada.html>.

¹²³ MTS Allstream press release of 9 October 2014, available at <http://www.mts.ca/mts/about+mts+allstream/news+room/news+releases/allstream+celebrates+fourth+consecutive+quarter+of+solid+ip+customer+growth>.

¹²⁴ See Sanderson Report, Attachment 4, page 26.

¹²⁵ See Sanderson Report, Attachment 4, page 3.

The language of the forbearance tests articulated in Section 5.2 of CNOC's second intervention, which relate to high-speed fibre based access services, Ethernet access services, fibre based transport services and Ethernet transport services, repeatedly refers to the wholesale obligations and conditions of forbearance from the perspective of an ILEC applicant. This is because CNOC's proposed tests preserved much of the language from the original forbearance tests articulated in Telecom Decision 2007-351. Notwithstanding the specific references to the ILEC, these forbearance tests are intended to apply to the wholesale obligations of both the ILEC and the cable carriers with respect to all of the above noted services. In fact, in the case of fibre based access and Ethernet access services, CNOC explicitly stated that the proposed test should apply to incumbent services. [emphasis added]

129. To the extent that CNOC is proposing the introduction of brand new mandated CDN and Ethernet services from cable operators, we fundamentally oppose this position. The Phase-Out Services should not be re-regulated for ILECs and no mandated access should be imposed on cable operators.

7.0 RATE-SETTING ISSUES

130. In this section, we discuss a number of issues raised by the Commission in relation to the way the rates for mandated wholesale services could be set. Mindful of the Commission's scope direction of 23 September 2014, our comments will be limited to high level principles relating to proposed improvements to the existing Phase II rate-setting processes. A more fulsome discussion of these issues can be found in our responses to Bell Canada(CRTC)31Jul14-16 and -17.

7.1 Improvements to Phase II Costing Processes

7.1.1 Treatment of Certain Sunk Costs

131. The treatment of sunk costs is a concern. In some cases, when a service that already exists at retail and then is mandated at wholesale, the Commission has rejected certain start-up costs on the basis that they were made strictly for retail and were already sunk. We submit that any carrier filing a cost study should be allowed to allocate a portion of the investment for any given functionality if a wholesale service benefits from that investment. Although one could argue that sunk costs are not prospective because they are already spent, we do not believe that any rates that are set that exclude these costs can be "just and reasonable". The just and reasonable treatment would require wholesale customers to share in the recovery of

investments that benefit the wholesale services they use and from which their end-users benefit, even if the investment decision was made prior to the introduction of the wholesale service.

7.1.2 Requirement to File New Cost Studies for Recently Filed Services

132. The Commission should waive the requirement to submit a cost study for tariff filing when it is appropriate to do so. It is our understanding that the Commission does not currently believe it has the ability in a tariff proceeding, as opposed to a policy proceeding, to waive a cost study requirement. We believe that the Commission has that authority and should exercise judgment in a tariff proceeding and allow the waiver of cost studies, or simplification of cost studies, as it sees fit.

133. The Policy Direction requires the Commission to "use measures that are efficient and proportionate to their purpose", "use only tariff approval mechanisms that are as minimally intrusive and as minimally onerous as possible" and to "continue to explore and implement new approaches for streamlining its processes". These requirements apply just as much to the Commission's costing proceedings as they do to its more general policy decisions. One way, for example, to streamline cost study requirements would be to allow cost study results to remain valid for a reasonable time (for instance five years or more when the cost study was performed for a 10-year period).

7.1.3 Requirement to File Cost Studies for Services with Little Demand or Revenues

134. An additional area where we recommend a more streamlined process is for services which have (or are projected to have) low demand and revenue. For retail services, the Commission has waived the requirement for a Price Floor Test demonstration where the monthly revenue for a given service is less than \$10,000 per month and if there are less than 10 customers¹²⁶. A small service exemption should also be available for wholesale services. This would be efficient for both the company filing the tariff and for the Commission. At the very least, the Commission should consider using discretion to waive the requirement for a cost study in situations where there is low demand and revenue for a service. Such a flexible approach would align with the Policy Direction's requirement that the Commission streamline its processes and use minimally onerous approval processes.

¹²⁶ Telecom Regulatory Policy CRTC 2009-80, *Review of the price floor test and certain wholesale costing methodologies*, paragraph 36.

7.2 Alternatives to Phase II

135. The Commission asked participants for their views on alternatives to Phase II as a rate-setting method for mandated services. As we've indicated in our responses to Bell Canada(CRTC)31Jul14-16 and -17, we do not support the replacement of Phase II with either Retail Minus or negotiations with Commission arbitration. Many other parties share our objections to these alternatives.¹²⁷

8.0 RELATIONSHIP BETWEEN LEGACY AND NEXT GENERATION NETWORK (NGN) WHOLESALE RATES

136. As we've indicated in Bell Canada's First Intervention, the interrelation between legacy and NGN prices cannot be denied. It must be taken into account when setting wholesale rates.

137. Government has recognized the benefits of broadband usage, especially at higher speeds, for customers and the economy. Given this, legacy prices should not be lowered. Doing so would discourage customers from moving from legacy to growth services. Lower legacy prices would instead encourage customers to remain on legacy services which typically use old and often manufacture discontinued equipment.

138. As noted by the Wall Report on pricing, regulators around the world are "seeking to facilitate and promote deployment of NGN facilities to the greatest and fastest degree possible"¹²⁸. Indeed, the goal around the world is to build a critical mass of demand on NGNs as quickly as possible. Regulators must take into account the indirect relationship between the price they set for legacy services and the resulting demand for NGN services. This relationship is essential in designing policy that properly encourages economic investment in NGN services. For example, many Internet speeds are available over both legacy (mainly copper) and NGNs. For higher speeds unique to fibre (including cable), the availability of lower speeds over copper provides a constraining influence as consumers assess whether any premium fibre price is justified based on its incremental benefits. The higher the demand for copper services relative to that for fibre services, the harder it will be for investors to recover their investment in NGN facilities. Thus, the differential between copper prices and fibre prices must be kept at the forefront of the Commission's legacy pricing approach.

¹²⁷ See Telus(CRTC)31Jul14-16 and -17, MTS Allstream(CRTC)31Jul14-16, SaskTel(CRTC)31Jul14-16, CNOC(CRTC)31Jul14-16 and -17, Primus(CRTC)31Jul14-16 and -17, Distributel(CRTC)31Jul14-16 and -17, and Fibernetics(CRTC)31Jul14-16 and 17.

¹²⁸ See the Wall Report on pricing, page 57.

139. In this regard, the European Commission (EC) has issued a recommendation that supports using a bottom-up Long Run Incremental Cost (LRIC) model (similar to Phase II) to set copper unbundling rates based on the cost of a modern efficient Next General Access (NGA) network, not a copper network. The EC has explicitly rejected calls by new entrants (access seekers) to lower copper prices. The access seekers based their call for lower copper prices on the dubious argument that doing so would increase broadband take-up and therefore ultimately spur demand. In response, the EC stated:

...after examining all the evidence, and given the significant competitive relationship between copper and NGA networks, we are not convinced that a phased decrease in copper prices would spur NGA investment. Indeed, we now see fibre investment progressing relatively well in some Member States where copper prices are around or above the EU average.¹²⁹

140. Perhaps nowhere is the dilemma more acutely highlighted than in New Zealand. In an effort to spur fibre builds, the Government has entered into partnerships with carriers to fund approximately 50% of the cost of building FTTP. When the regulator (the Commerce Commission) proposed significant rate reductions to the copper access prices for access seekers, the Government responded with several proposals to limit those reductions because it determined that these lower rates would undermine FTTP take-up, and by extension, the prospect of their carrier partners actually building FTTP facilities¹³⁰. The New Zealand Commerce Commission is now conducting a series of pricing reviews for both the copper and NGN access services, and this process will extend at least to April 2015. The ongoing uncertainty is impacting the industry's plans for fibre migration.

141. In short, the price of wholesale legacy access services cannot be considered in isolation because the telecommunications industry is changing faster than ever. In our view, the Commission should thus refrain from any further reductions in the wholesale rates for legacy services.

142. We note CNOC's objection to our proposal to freeze the rates of legacy services so as to spur adoption and deployment of NGN services. CNOC argues that "[i]n order to be just and reasonable" rates must be "rightfully cost based" and insists that "[i]f the costs of legacy services fall...the pricing of those services should be kept current."¹³¹ We submit that CNOC's

¹²⁹ European Commission Memo, 12 July 2012. *Enhancing the broadband investment environment* – policy statement by Vice President Kroes.

¹³⁰ For more details, see Section 4.2 of the Cline Report, which is on the record as Attachment 5 to our First Intervention.

¹³¹ CNOC(CRTC)31Jul14-21.

arguments are flawed by making costs the only relevant factor in setting the rates of a service. Section 27 of the *Act* requires that the rates charged by Canadian carriers be "just and reasonable" – not that they purely be cost-based. Moreover, the statute gives the Commission a wide discretion in determining such "just and reasonable rates" as it explicitly allows that "the Commission may adopt any method or technique that it considers appropriate, whether based on a carrier's return on its rate base or otherwise". The Commission has used relative prices in the past to affect consumer and supplier behaviour or to achieve public policy objectives: higher local business rates subsidized residential ones, higher long-distance rates subsidized local rates. More broadly, government frequently intervenes to influence prices (independently of their underlying costs) to similarly affect behavior: luxury taxes on alcohol and tobacco, environment levies on gasoline, a complex sales tax exemption scheme to artificially modify the relative prices of goods and services. In our view, section 27 gives the Commission the authority to consider the relative rates of NGN services in setting the rates of legacy services. In fact, given the intrinsic correlation between demand (and investment) in NGN and the relative price difference between NGN and legacy services, it would be the setting of NGN and legacy prices in isolation of each other that would result in unjust and unreasonable rates.

9.0 OTHER ISSUES

143. We turn now to three final issues: Equivalence of Inputs (EOI), Billing and Collection Service (BCS) and TELUS' interconnection proposal.

i) Equivalence of Inputs

144. CNOC proposes that the Commission adopt an EOI approach to the regulation of wholesale access services. We believe that EOI is neither necessary nor justified. In this section, we discuss the following reasons why the Commission should not adopt EOI in Canada:

- any benefits of EOI are far outweighed by the substantial costs and downsides associated with it; and
- there are better, less intrusive methods of regulation, which can be applied if the Commission concludes that there are issues of discrimination that must be addressed.

145. The Policy Direction states that when relying on regulation, the Commission must use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary. In other words, when

considering whether to impose regulation, like EOI, the Commission must perform a careful assessment of the costs and benefits of the proposed regulatory measure. If the benefits do not outweigh the costs, the measure should not be used. The substantial costs of implementing EOI far outweigh any benefit which would be derived from it.

146. While EOI would require the modification of an extensive number of IT systems and processes, the ultimate outcome for the wholesale customer would not change materially. We have demonstrated, in response to requests for information¹³², that wholesale customers ordering local loops today receive the same service in the same timeframe as that received by our retail division. Although all of the detailed steps are not necessarily the same, and the IS/IT systems in many cases must treat a request from our retail division different from a request from a wholesale customer, the outcome is generally equivalent both in terms of the service received and the time in which it is provided. As such, there would be little benefit over existing regulation to be gained from imposing an EOI approach.

147. As we have noted in this proceeding¹³³, the cost of implementing EOI in both monetary and resource terms would be enormous. British Telecom expended £150M (i.e., \$273.1M Canadian dollars) in the three years from 2006 to 2008 implementing EOI, in a process which was still ongoing and incurring costs in 2012. While CNOC has not provided any estimates of the cost to implement EOI in the countries cited in its report or in Canada¹³⁴, we have conservatively estimated that the cost to Bell Canada would be in excess of \$100M, based only on the costs to make the necessary changes to the numerous IT systems and processes which would have to be modified as a result of implementing EOI. Hundreds of IT systems and processes would be impacted if the Commission mandated EOI. Each system would need to be examined and assessed for potential changes. Once the required changes were identified, resources would need to be secured, work prioritized and the necessary changes implemented and tested to ensure proper functioning before the modified systems could be used. This would be an immense undertaking.

148. However, time and money costs would not be the only downsides of imposing an EOI approach¹³⁵. In addition to those costs:

¹³² Bell Canada(CNOC)28Mar14-35 and Bell Canada(CNOC)31Jul14-2102.

¹³³ Bell Canada Second Intervention, section 4.4, Bell Canada(CNOC)28Mar14-135 and Bell Canada(CNOC)31Jul14-2101.

¹³⁴ See CNOC(Bell Canada)28Mar14-29.

¹³⁵ See also the report by Professor Hahn, which is Attachment 1 to Bell Canada's Second Intervention, at pages 15 and following.

- EOI would require substantial additional regulatory measures like service level agreements, accounting separation, and Commission review of management financial incentives. Extensive negotiations and lengthy regulatory hearings would be required.
- The number of changes to systems and processes required to implement EOI significantly increases the chances of customer and network affecting disruptions. Telecom NZ had to request additional time to implement its EOI undertakings because of this large risk attached to modifying multiple systems all at the same time.

ii) *Billing and Collection Service*

149. With respect to BCS, we proposed in our First Intervention that this service be forborne.¹³⁶ BCS is currently a mandated wholesale service assigned to the Interconnection category.¹³⁷ In arriving at this conclusion, the Commission considered that BCS was related to equal access, which itself had been found required for long distance competition.¹³⁸

150. BCS should be forborne regardless of its classification. If BCS is not (or is no longer to be treated as) an Interconnection service, then it is non-essential, and it should no longer be mandated. If BCS continues to be considered an Interconnection service (and thus its continued regulation, like that of public goods services, is not contingent on the essentiality framework)¹³⁹, then it warrants forbearance under the simple criteria of section 34 of the *Act*: competition is sufficient to protect the interests of users, and forbearance will not impair unduly the continued competitiveness of any market. Classifying a service as an Interconnection service does not exclude the application of section 34, as subsection 34(2) requires the Commission to forbear where the right circumstances are present.

151. With respect to whether BCS is an essential facility, we note:

- BCS is not required by competitors to provide retail long distance services - there are many ways in which these services can be, and are, provided other than with BCS. For

¹³⁶ To be clear, we are not suggesting that equal access be removed. If BCS is forborne, the equal access obligation will remain. But interexchange carriers (IXCs) will be required to bill their own customers directly absent a negotiated BCS agreement with the LEC.

¹³⁷ It was first assigned in Decision 2008-17 and confirmed in Telecom Decision CRTC 2008-119, *Bell Canada et al.'s application to review and vary Telecom Decision 2008-17 with respect to wholesale billing and collection service* (Decision 2008-119), issued 11 December 2008.

¹³⁸ Telecom Decision CRTC 92-12, *Competition in the provision of public long distance voice telephone services and related resale and sharing issues*.

¹³⁹ See for instance the Commission's statement at paragraph 23 of Decision 2008-119, that under the framework adopted in Decision 2008-17, services are not classified as interconnection services based on an essentiality analysis.

example, providers can use equal access arrangements or provide for debit or credit card billing to bill for long distance services. BCS is not, therefore, required as an input by competitors to provide services in the downstream long distance market.

- Withdrawing access to BCS would not result in a substantial lessening or prevention of competition in the market for retail long distance services (or any other market). Casual calling represents only a small portion of the total market for long distance services, and multiple alternatives (including equal access calling; pre-paid calling billed through pre-paid calling cards, debit cards or credit cards; calls over other providers' wireline or wireless networks; and calls using VoIP services) exist for customers wishing to make long distance calls.

152. In any event, BCS should be forborne under section 34 because the primary retail service it supports - long distance calling - is already subject to sufficient competition to protect the interests of end users without mandated access to BCS. The market for long distance calling is extremely competitive and shows clear evidence of rivalrous behaviour. The share of telecommunications revenues attributable to long distance has halved since Decision 2008-17¹⁴⁰, not because Canadians are making fewer long-distance calls but because prices have plummeted¹⁴¹. At the same time, the proportion of such calling made through 10-10 casual calling services has decreased as a proportion of overall long distance calling¹⁴². Through requests to information, there now is further evidence that BCS is non-essential and that alternative billing and collection methods can be used¹⁴³. We requested information from participants to this proceeding and many specifically agreed that BCS ought to be forborne as an outcome of this proceeding.¹⁴⁴

153. In addition, we can see that the number of customers presubscribed to an alternate Interexchange Service Provider is low. It is below 10% for both Bell Canada and Bell Aliant for both residential and business customers¹⁴⁵, it is not "significant enough to track" for SaskTel¹⁴⁶ and Telus indicated that their percentage of end-users pre-subscribed to another long distance

¹⁴⁰ CRTC, 2013 Communications Monitoring Report, Figure 5.1.5.

¹⁴¹ Average toll revenue per minute has fallen 19% since 2008 and fell 5% between 2011 and 2012: See CRTC 2009 Communications Monitoring Report 2009, page 18 and CRTC 2013 Communications Monitoring Report, page 131.

¹⁴² This was recognized by Yak, Canada's largest casual calling company, when it stated in a hearing in 2011: "Our IXE business is definitely eroding. It's eroding significantly every year, and we are replacing it with other services. That's why we've pushed into CLEC services. We have digital home phone product, which is a local VOIP product. And we realize that the IX business is declining". Transcript, Volume 3, 26 October 2011 at paragraph 3493.

¹⁴³ See the responses of Rogers, Eastlink, Cogeco, SaskTel, Shaw and Quebecor Media to (Bell)28Mar14-1.

¹⁴⁴ See Eastlink(Bell)28Mar14-1 and SaskTel(Bell)28Mar14-1.

¹⁴⁵ Bell Canada(Telus)28Mar14-2.

¹⁴⁶ SaskTel(Telus)28Mar14-2.

provider is under 10% and "dropping steadily".¹⁴⁷ Moreover, the number of Primary Interexchange Carrier (PIC) transactions has been plummeting since 2008.¹⁴⁸ For instance, Bell Canada data indicates that the volume of yearly PIC transactions has fallen by over 80% overall since 2008.

154. In contrast, CNOC argues that BCS is "unquestionably" essential.¹⁴⁹ CNOC however provides no justification for that position under the Commission's (or CNOC's revised) definition of an essential facility. First, CNOC wrongly states that BCS was classified as essential in Decision 2008-17 – in reality it was classified as an interconnection service. Then CNOC defends its position on the basis that "[t]he business operations of certain competitors depend on BCS services" with the result that "[i]f such services were not mandated, small competitors would needlessly incur significant expenses". That certain competitors make use of BCS doesn't imply that BCS is a necessary input under the first prong of essentiality. And that without mandated BCS small competitors would incur expenses in no way translates into a substantial effect on downstream competition, the second prong of essentiality.

155. BCS cannot be considered "essential" under the plain language definition of that term either. It is not "of utmost importance", "basic", "indispensable" or "necessary"¹⁵⁰, to protect the interests of users. It should thus be forborne under subsection 34(2).

156. We fail to see how BCS should remain a mandated Interconnection service when billing and collection, in itself, is not even a telecommunications service. BCS is simply an historical adjunct to the provision of competitive long distance services whose time, as the evidence above shows, has passed. It thus should be forborne pursuant to subsection 34(2). As well, if it were reclassified away from the Interconnection category, it would clearly be non-essential.

iii) Telus' Interconnection Proposal

157. Bell Canada supports the re-classification of those services identified by Telus as being "non-essential" and therefore on a path to forbearance. Bell Canada questions that a number of these services belong in the Interconnection category as these services, for instance Local Transit and Extended Area Service, are not used to establish interconnection with our end-users. Rather they facilitate functions which CLECs and IXCs are increasingly performing

¹⁴⁷ Telus Second Intervention, paragraph 83.

¹⁴⁸ Bell Canada(Telus)28Mar14-2.

¹⁴⁹ CNOC(CRTC)31Jul14-41.

¹⁵⁰ Merriam Webster dictionary: <http://www.merriam-webster.com/dictionary/essential>.

themselves, as evidenced by the decline we've witnessed in the demand for these services. Other services, such as Access Tandem and Wireless Access Service are services that competitors can and do self-supply. Regardless of their regulatory classification, we submit that all these services can be forborne without jeopardizing the interest of users.

158. Bell Canada has observed many CLECs either disconnecting their Local Transit, Extended Area Service, or Wireless Access Service or operating without subscribing to any of these services at all. As CLECs increasingly can do without these services, they cannot be considered services generally required by competitors, and are thus non-essential. To illustrate, in the last four years we note that the Local Transit capacity required by Bell Canada's customers has declined by over [REDACTED] #, Extended Area Service termination capacity by over [REDACTED] #, and WSP capacity by over [REDACTED] #.

159. Bell Canada has observed even greater declines in Switching and Aggregation revenues, [REDACTED] #, than Telus and agrees that competitive options for long haul transport and termination services are available via other facilities based carriers.

160. At this stage in the development of our industry, the combination of CLECs expansion, the large footprint available via local interconnection regions, and the growth in direct connections between carriers all combine to obviate the need for mandated access to those services Telus has identified as improperly classified as Interconnection and, in fact, non essential.

Filed in confidence with the CRTC.