



Broadcasting Notice of Consultation CRTC 2011-488

PDF version

Additional reference: 2007-54

Ottawa, 15 August 2011

Call for comments on proposed English-language Closed Captioning Quality Standards

*The Commission calls for comments on proposed English-language Closed Captioning Quality Standards, filed by the English-language Closed Captioning Working Group. The Closed Captioning Quality Standards are sets of standards (one for each official language market) that address the quality of closed captioning provided by Canadian television broadcasters. The deadline for comments is **14 October 2011**. The deadline for replies is **23 November 2011**.*

The Commission notes that the proposed French-language Closed Captioning Quality Standards will be considered in a separate process also announced today.

Once approved by the Commission, all television licensees will be required to adhere to the closed captioning standards through conditions of licence that have been or will be applied at the time of licence renewal or approval of a new licence.

Introduction

1. In Broadcasting Public Notice 2007-54, the Commission set out a new policy on closed captioning that required all television broadcasters, including third-language broadcasters, to caption 100% of their English- and French-language programs over the broadcast day. The Commission also directed the broadcasting industry to establish two closed captioning working groups (CCWGs), one for the French-language television market (FL-CCWG) and one for the English-language television market (EN-CCWG).
2. The Canadian Association of Broadcasters (CAB), on behalf of the broadcasting industry, coordinated the establishment of both CCWGs. These groups included representatives from private and public television broadcasters, distributors, consumer and advocacy groups representing persons who are deaf or hard of hearing, and captioning providers. Commission staff also attended the working group meetings as observers on an as-needed basis.
3. The purpose of the CCWGs was to develop and implement measures to improve the quality of closed captioning in Canada, including the development of standards in English and French that address significant concerns, raised by users of captioning, over the poor quality of captions, including both consistency and style issues.

4. The Commission also asked the CCWGs to develop concrete, workable solutions in regard to particular aspects of captioning quality, including reducing errors and technical problems (such as dropped or garbled captioning) or captioning that is cut off by commercials. The overall objective of the CCWGs, as set out in Broadcasting Public Notice 2007-54, was to establish captioning standards that would become conditions of licence for broadcasters, thereby ensuring consistent and reliable captioning quality throughout the Canadian broadcasting system.
5. The CCWGs first submitted proposed closed captioning standards to the Commission during the proceeding initiated by Broadcasting Notice of Public Hearing 2008-8/Telecom Public Notice 2008-8. Following the close of that proceeding, the Commission issued Broadcasting and Telecom Regulatory Policy 2009-430 (the Accessibility Policy), in which it considered that the proposed standards submitted by the CCWGs were incomplete and required further attention. The Commission directed the CCWGs to file, for Commission approval, revised and completed standards addressing the following areas:
 - speed of captions, including a separate speed for children's programming;
 - captions that block or are blocked by other on-screen information;
 - acceptable rate of error; and
 - standards for digital broadcasting, including in high definition.
6. In the Accessibility Policy, the Commission also directed the EN-CCWG to do the following:
 - provide concrete evidence that the standards it develops with respect to speed of captioning, digital captioning and error rate are acceptable to the users of captioning by way of a methodologically sound validation exercise;
 - provide a description of the methodology employed and evidence that the results achieved are statistically valid and representative of the user communities;
 - include children in validation exercises for speed of captioning in children's programming;
 - amend the proposed English-language standards to stipulate that all Canadian pre-recorded programming must be captioned in pop-on format;
 - include a requirement for broadcasters to correct captioning errors in live programming before such programs, or segments within those programs, are rebroadcast;

- determine whether it is appropriate for the English-language standards to include a provision that a sign-language message be broadcast during emergency programming;
 - ensure that all standards contain imperative language and concrete examples of what is and is not acceptable;
 - include a definition of terms, with visual illustrations as examples where appropriate; and
 - eliminate inconsistent information and information not pertinent to the standards.
7. On 10 February 2011, the CAB submitted the final report of the EN-CCWG. In the report, the working group indicated that it had reached consensus on the majority of issues, specifically, those relating to the appropriate format and speed for live, pre-recorded programming and children's programming.
8. In the present notice, the Commission is seeking comments on, among other things, the appropriateness of the proposed standards for the English-language market, including the extent to which the Commission should apply the standards proposed by the FL-CCWG, as described in Broadcasting Public Notice 2011-489, in the English-language market for items where the EN-CCWG was unable to reach consensus, as discussed below.
9. In this notice, where the Commission refers to positions or statements of CCWG participants, these references are based on comments made in the following documents, which have been placed on the Commission's website at www.crtc.gc.ca as part of the public record for this proceeding:
- the final reports of the EN-CCWG and the FL-CCWG;
 - letters from the EN-CCWG consumer representatives;
 - summaries of CCWG meetings; and
 - CCWG progress reports.
10. In addition, the Commission has placed the following documents relating to the development of the proposed closed captioning quality standards on its website as part of the public record for this proceeding:
- Commission letters;
 - letters from the CAB and/or the EN-CCWG; and
 - the Monitor 2 quantitative report (see paragraph 12 below).

Lack of consensus by the English-language Closed Captioning Working Group

11. The report of the EN-CCWG identified the following key areas where consensus could not be reached:

- the establishment of a standard to ensure captions do not block or are not blocked by other on-screen images or graphics;
- the establishment of an appropriate lag time (time delay between the spoken word and the captions appearing on the screen) for captioning of live programming;
- the establishment of an acceptable maximum rate of error, including the definition of an error and method for calculating error rate; and
- the format of Canadian pre-recorded programming (pop-on versus roll-up).¹

12. In its letter of 10 February 2011, the CAB recommended that the Commission obtain from CTVglobemedia Inc. (now Bell Media Inc.) the findings of a Canadian research study on accessibility entitled *Monitor 2: Best Practices Guide for Production and Distribution of Accessible Content in Canada*.² At that time, the CAB was of the view that the study would provide necessary information to all stakeholders, including the Commission, pertaining to some of the outstanding standards on which no consensus was reached by the EN-CCWG.

13. On 14 and 23 February 2011, a group of representatives from organizations representing users who are deaf or hard of hearing (consumer representatives) submitted letters to the Commission in which they outlined, among other things, the factors that they considered had impeded the EN-CCWG's ability to reach consensus on certain issues.

14. On 18 March 2011, the FL-CCWG submitted its final report to the Commission, in which it stated that it had reached consensus on the proposed standards. This working group's report divided the standards into two categories: mandatory standards that could be imposed as conditions of licence, and universal standards that it suggested could be more appropriately considered as best practices or guidelines and that should not be imposed as conditions of licence.

¹ Roll-up captions roll onto and off the screen in a continuous motion, with usually two to three lines of text appearing at one time. As a new line comes along, it appears on the bottom of the screen, pushing up the other lines on the screen. For pop-on captions, a phrase or sentence appears on the screen all at once – not line by line – stays there for a few seconds and then disappears or is replaced by another full caption. Pop-on captions are timed to synchronize with the program and placed on the screen to help identify the speaker.

² This study was funded by tangible benefits payable by CTVglobemedia Inc. in relation to its acquisition of CHUM Ltd, as outlined in Broadcasting Decision 2007-165.

15. Below, the Commission discusses the items for which consensus was not reached by the EN-CCWG. For reference purposes, the standard proposed by the FL-CCWG for each of these areas is also provided, where available.

Captions that block out or are blocked by other on-screen information

16. At the present time, captions are generally the last graphics added to the screen during the production process. When captions block out other on-screen information such as action, sports scores and weather information, it can be difficult for the viewer to follow what is happening on-screen.
17. The consumer representatives were of the view that the issue of captions that block out other on-screen information is fundamentally about “inclusive design,” and that the accessibility of a particular product or service should be considered at the beginning rather than at the end of the process. Accordingly, they submitted that captions should be placed on the screen first and that other on-screen information should be built around the captions. They also suggested that screens should be re-designed to ensure there is always room for captions.
18. The broadcasters who participated in the EN-CCWG (broadcaster representatives) submitted that captioning must work around information already embedded as part of the screen, such as tickers, advertising or other information. They further submitted that it is a challenge not to block out visual components with captions because the screen may already be crowded with other information, including network logos and advertising information. In their view, a screen re-design would be required in order to reserve space on the screen solely for the use of captions. The broadcaster representatives further submitted that a screen re-design could negatively affect the commercial viability of their services, as screen design is a feature that broadcasters use to compete in attracting audiences.
19. As a possible solution to captions that block out other on-screen information, the broadcaster representatives noted in the final EN-CCWG report that on-screen captions can be moved during a telecast by captionists. They agreed to ensure that their contracts with captioning providers include a provision that captionists make “best efforts” to ensure that captions do not block out other on-screen information.
20. The Commission notes that none of participants from the EN-CCWG proposed a concrete standard that would prevent captions from blocking key on-screen information. However, in its final report, the FL-CCWG proposed a mandatory standard that would read as follows:

[translation] The closed captioning must be positioned so that it does not block key visual elements or information essential to the comprehension of the primary information on the screen.

Lag time for live programming

21. Lag time is the term used to identify the delay that occurs between the moment a word or significant sound is heard on-screen and the moment the corresponding caption appears on-screen. When the lag time is too long, captions are no longer synchronized with what is happening on the screen, which makes it difficult for viewers to follow the story, identify the speaker, or remain engaged in the program. The Commission notes that lag time is an issue with live programming, but not for pre-recorded programs.
22. The consumer representatives were of the view that captioning speed should be as close as possible to the speed of the audio track, without editing the content of captions. Accordingly, they submitted that it would be appropriate to expect that the lag time for live programming not exceed five seconds, and that it should not exceed three seconds at least 80% of the time.
23. The consumer representatives suggested that broadcasters could decrease the lag time by having a captionist (or captionists) in the studio during live programming. They submitted that this could eliminate the delay that occurs when sending the audio track to a captionist in a remote location, thereby shortening the lag time by approximately two seconds. They further submitted that lag time for live scripted television, such as news, could be reduced if captionists were provided with the script ahead of the telecast.
24. The broadcaster representatives argued that reaching a maximum lag time of five seconds is not achievable, given that delays are largely caused by human factors. They noted, for example, that lag time may occur because of the complexity of the subject matter, the number of speakers whose words are being captioned, the level of difficulty in identifying the speakers, or the skill of the captionist. The broadcaster representatives submitted that lag time is also attributable to the technical routing of the audio signal to the captionist and the return of captions to the broadcaster. They further submitted that faster speeds of captioning can result in a lower accuracy rate.
25. To address this issue, the broadcaster representatives committed to broaden the use of audio couplers³ to eliminate the portion of the lag time that is associated with the routing of the television signal to those captionists that would normally receive the program via cable or satellite home delivery. In their view, this could potentially reduce the overall lag time by one second.
26. The Commission notes that the broadcaster representatives did not propose a specific maximum lag time as a standard. However, the FL-CCWG, in its final report, proposed a mandatory standard in this regard that would read as follows:

³ Audio couplers provide the captionist with a direct audio feed of the live program they are captioning.

[translation] For live programming, the delay between the audio and the captions must not exceed 5 seconds, averaged over the program.

Errors and maximum rate of error for live programming

Definition of an error and maximum rate of error

27. The purpose of a maximum rate of error is to establish a realistic and achievable level of high quality captioning that is both comprehensive and accurate. The Commission considers that a clear methodology for calculating an error rate and the establishment of an appropriate maximum rate of error are fundamental for monitoring errors in closed captioning and ensuring closed captioning compliance. However, before establishing an appropriate maximum rate of error, it is first necessary to adopt an appropriate definition of “error.”
28. Although the EN-CCWG’s consumer and broadcaster representatives submitted that captions must accurately relay what is happening on-screen, neither proposed a definition of what constitutes an error. Further, while the CAB’s final report stated that the EN-CCWG had defined and agreed on what was to be considered an error, the final report did not provide a definition of “error.” The Commission notes that in earlier working group discussions, participants indicated that an error could be defined as “incorrect spelling, incorrect names, punctuation errors, omissions, substitutions (i.e. addition of incorrect words) and homophones.”
29. In regard to an appropriate maximum rate of error for live programming, the consumer representatives argued that the lack of empirical data on the current accuracy rate of captioning makes it difficult to define a realistic accuracy standard. They suggested that research be undertaken in this area and that until such research is completed, a 98% accuracy standard be adopted as a best practice. They also proposed that this rate be reviewed annually.
30. The broadcaster representatives submitted that a standard cannot be realistically adopted in the absence of empirical research and, as a result, did not propose a maximum rate of error.
31. According to a captionist representative who participated in the EN-CCWG, that representative’s captioning company monitors its captioning for quality and has a target accuracy rate of 98%, although it strives to attain 100% accuracy.
32. As set out in its final report, the FL-CCWG identified three types of captioning errors that can decrease the intelligibility of the program: 1) deletion errors where a correct word is omitted; 2) substitution errors where an incorrect word is substituted for a correct word; and 3) insertion errors where an extra word not in the audio track is added to the captioning. This working group proposed that the accuracy rate be defined using the following calculation (A= accuracy rate; N=total number of words;

Del=number of deleted words; Sub=number of substituted words; I=number of inserted words):⁴

$$A = \frac{(N - \text{Del} - \text{Sub} - \text{I})}{N} \times 100$$

N

33. The FL-CCWG further proposed that the minimum accuracy rate for live programming should be set at 85%.
34. The Commission notes that in most cases, the closed captioning technology used in the French-language market differs considerably from that used in the English-language market. Whereas the English-language market generally uses stenography to provide captioning, voice recognition technology has generally been recognized and accepted in the French-language market. In this regard, the Commission notes that the accuracy rate of captioning using voice recognition technology is typically lower than for stenographer-produced captioning.
35. Given the long-time use of stenographer-produced captioning in the English-language market, the current higher accuracy rate of this closed captioning methodology, and the fact that captioning providers for the English-language market have become accustomed to that methodology, the Commission notes that the definition of “error” and the minimum accuracy rate, as proposed by the FL-CCWG, may not be applicable for English-language captioning.

Correction of errors in the re-broadcast of live programs

36. The Commission notes that the EN-CCWG did not include a standard relating to the correction of errors prior to the re-broadcast of live programming. The FL-CCWG, however, in its final report, did propose a mandatory standard in this regard, to read as follows

[translation] In cases where live programming is re-broadcast, all errors must be corrected prior to the programming being re-broadcast if the programming meets the following criteria:

- it is re-broadcast exactly as it originally aired; and
- the time between the end of the original broadcast and the re-broadcast is equal to at least twice the length of the original program. For example, if the original program lasts 1 hour, all errors must be corrected if it is re-broadcast 2 hours or more afterwards.

⁴ Del (deleted words): words that are present in the audio but that are absent from the captions; Sub (substituted words): words from the audio that are replaced with other words in the captions; I (inserted words): words that are present in captions but that are absent from the audio.

Format of captions – pop-on versus roll-up

37. In the Accessibility Policy, the Commission stated that, while roll-up captions are used in programming such as live local news, discussion programs, variety shows and sports, evidence from the record of the proceeding that led to the issuance of that policy indicated that pop-on captioning is preferable for pre-recorded programming such as dramas and documentaries. Accordingly, the Commission directed the EN-CCWG to amend the standards to stipulate that all Canadian pre-recorded programming must be captioned in pop-on format. The Commission notes that the format of captions was not a contentious issue for French-language programming.
38. In a letter dated 21 July 2010, the Commission was asked by Canadian television broadcasters to clarify its definition of pre-recorded programming, taking into account the time required for the production of pop-on captioning for programs such as rebroadcasts of news programming, as well as daily soap operas and talk shows, which are received close to air-time.
39. In its reply of 30 July 2010, the Commission stated that, given the evidence from the record of the proceeding that led to the issuance of the Accessibility Policy, the key objective of the requirement regarding pop-on captioning is to ensure that such captioning is provided for pre-recorded Canadian dramas and documentaries. However, it also recognized that there may be some instances where pre-recorded programming in genres other than drama and documentaries (such as rebroadcasts of news programming, as well as daily soap operas and talk shows) must rely on real-time roll-up captioning due to time constraints between the receipt and broadcast of the program.
40. The consumer representatives were of the view that all pre-recorded programming should be in pop-on format. They submitted, however, that it is appropriate to caption children's programming in roll-up format.
41. In its final report, the EN-CCWG proposed the following standard in this regard:

Pop-on captions are to be used for new Canadian pre-recorded programming in Categories 7 and 2b (dramas and documentaries), so long as broadcasters have sufficient time for pop-on captions to be produced between the delivery of a program and the airing of that program.
42. The Commission notes that the standard proposed in the EN-CCWG's final report does not reflect the clarification provided by the Commission in its 30 July 2010 letter in regard to the type of programming that must be provided in pop-on captions.

Sign language interpretation in emergency messages

43. In the Accessibility Policy, the Commission directed the EN-CCWG to review its emergency broadcast standards to determine whether it would be appropriate to include a provision that a sign-language message be broadcast during emergency

programming. The Commission noted that such a provision had been included in the proposed French-language standards.

44. On 21 May 2010, the CAB filed with the Commission a document entitled *Phase I Progress Report*, in which it noted that a review of emergency broadcast standards will need to align with a much broader set of activities on “alerting.” At that time, the CAB indicated that it may not be possible for the CCWGs to develop any type of standard for emergency broadcasts outside of a larger process on emergency alerting.
45. The Commission notes that the EN-CCWG did not address the appropriateness of including a provision that a sign-language message be broadcast during emergency programming. The Commission considers, however, that the requirement that broadcasters provide 100% closed captioning of all English-language programming will ensure that such emergency broadcasts are captioned.
46. The Commission notes that the standards proposed by the FL-CCWG include a best practice whereby, during an emergency alert, broadcasters should air a sign language message as quickly as possible.

Standards for digital broadcasting

47. In the Accessibility Policy, the Commission stated that, as demonstrated by the record of the proceeding that led to the issuance of that policy, different standards are needed for the production and delivery of programming in a digital, as opposed to an analog, environment. It therefore directed the CCWGs to develop standards for the delivery of closed captioning in a digital environment.
48. The Commission notes that the EN-CCWG did not find it necessary to propose separate quality standards for analog and digital broadcasting, but that it agreed that in a digital environment, captions may be absent for various technical reasons, including failures related to transmission, processing, and end-user equipment issues.
49. Similarly, the FL-CCWG submitted that its proposed standards would apply regardless of whether programming is provided in an analog or a digital format. It also submitted that the issues relating to the provision of captions in a digital environment are linked to the distribution of captions by broadcasting distribution undertakings, as well as user knowledge of the new digital technologies.

Mandatory standards and best practices

50. While the EN-CCWG made no such distinction, the FL-CCWG identified a number of standards that it considers to be measureable “mandatory standards” that would be imposed on broadcasters as conditions of licence. The FL-CCWG also identified standards that it believes could be better categorized as guidelines or best practices.
51. The mandatory standards proposed by the FL-CCWG address the following:

- captioning of emergency alerts;

- an appropriate lag time (time delay between the spoken word and the captions appearing on the screen) for captioning of live programming;
- positioning of captions on the screen;
- quality of captioning for pre-recorded programming;
- a maximum rate of error, including definition and methodology for live programming;
- correction of errors prior to rebroadcast of live programming;
- a consistent way of identifying a new speaker; and
- speed of captions.

52. The guidelines/best practices as submitted by the FL-CCWG touch on areas such as how to caption false starts, utterances and repeated words; the appropriate number of captioning lines (for example, when to display two or three lines); how to divide a long sentence when using pop-on captions; the appropriate use of spaces; and the appropriate use of colour, italics and upper and lower case letters.

Is future action required?

53. In their letter of 23 February 2011, the consumer representatives made additional recommendations on matters that they considered should be included in the implementation plan for the accessibility obligations outlined in the Accessibility Policy. These recommendations, which relate to aspects of the closed captioning process that they regard as necessary for improving the overall captioning experience for end users, address, among other things:

- procurement policies;
- reporting on accessible content costs and revenue;
- non-regulated programming platforms; and
- accessibility of commercials.

54. The Commission notes that while the recommendations forwarded by the consumer representatives relate to important issues, they fall outside of the scope of this proceeding.

55. In addition, the EN-CCWG submitted that a future phase of deliberations could focus on areas related to captioning in a digital environment. According to the EN-CCWG, these might include methods to educate consumers more effectively on how to access captions depending on the format of the program signal and set-top box; the adoption by equipment manufacturers of an “inclusive design” approach; the feasibility of

simplifying how users activate closed captions for display on a given program; and issues pertaining to the role of distributors in the delivery of closed captions for digital television.

56. The Commission notes that the FL-CCWG also recommended the continuation of working group activities in order to ensure the success of the standards.

Call for comments

57. The Commission calls for comments on the appropriateness of the proposed Closed Captioning Quality Standards for the English-language television market and any related action that should be taken in the future. The Commission notes that all English-language television licensees will be required to adhere to these closed captioning standards, once approved by the Commission, through conditions of licence that have been or will be imposed at the time of licence renewal or approval of a broadcasting licence for a new service. In light of the discussion above, the Commission seeks comments in regard to the following:

- a) the appropriateness of the standards on which the EN-CCWG reached consensus;
- b) the extent to which the standards proposed by the FL-CCWG for the following areas should be included in the English-language standards:
 - captions that block other on-screen information
 - lag time for live programming
 - definition of an error
 - maximum error rate for live programming
 - correction of errors in re-broadcast of live programming
 - sign-language interpretation in emergency messages

The Commission requests that parties who are of the view that the standards and definitions of “error” and “maximum error rate” proposed by the FL-CCWG should not be adopted for the English-language market include alternative standards and provide evidence explaining why a different definition and error rate should be applied.

- c) the appropriateness of distinguishing between mandatory standards and guidelines for best practices;
- d) whether additional standards are needed;

- e) for Canadian pre-recorded programming, why the wording set out in the Commission's 30 July 2010 letter in regard to the type of programming that must be provided in pop-on captions would not be an appropriate standard for the English-language market; and
- f) whether further action is required for the following:
 - to develop concrete, workable solutions with respect to other outstanding captioning quality issues, including the reduction of errors and technical problems such as dropped or garbled captioning, or captioning that is cut off by commercials;
 - to address captioning issues in a digital environment as discussed in paragraph 55 above; and
- g) if further action is proposed, whether the mandate of the working group should be extended for these purposes or if an alternative approach should be adopted.

58. The Commission notes that in Broadcasting Notice of Consultation 2011-489, also issued today, it calls for comments on the mandatory standards and guidelines/best practices proposed by the FL-CCWG for the French-language television market.

Procedure

The new *Canadian Radio-television and Telecommunications Commission Rules of Practice and Procedure*, (the Rules of Procedure), set out, among other things, the rules for the content, format, filing and service of interventions, and the procedure for filing confidential information and requesting its disclosure. Accordingly, the procedure set out below must be read in conjunction with the Rules of Procedure and its accompanying documents, which can be found on the Commission's website under "CRTC Rules of Practice and Procedure." The Commission notes that Rule 26(2) sets out the requirements as to form, content and service of interventions.

The Commission invites interventions that address the issues and questions set out above. The deadline for interested persons to file interventions is **14 October 2011**. Parties may file a reply on or before **23 November 2011**.

Parties are reminded that, in accordance with the Rules of Procedure, if a document is to be filed or served by a specific date, the document must be actually received, not merely sent, by that date. A document must be filed with the Commission by 5 p.m. Vancouver time (8 p.m. Ottawa time) on the date it is due. The Commission takes no responsibility for postal delays and will not notify a party whose intervention is received after the deadline date. Late interventions will not be considered by the Commission and will not be made part of the public file.

Interventions must be filed by sending them to the Secretary General of the Commission by **only one** of the following means:

by using the
[\[Intervention/comment/answer form\]](#)

or

by mail to
CRTC, Ottawa, Ontario K1A 0N2

or

by fax at
819-994-0218

Submissions longer than five pages should include a summary.

Electronic submissions should be in HTML format. Alternatively, Microsoft Word may be used for text and Microsoft Excel for spreadsheets.

Each paragraph of the submission should be numbered. In addition, where the intervention is filed by electronic means, the line *****End of document***** should be entered following the last paragraph of the document, as an indication that the document has not been altered during electronic transmission.

Important notice

All information that parties provide as part of this public process, except information designated confidential, whether sent by postal mail, facsimile, e-mail or through the Commission's website at www.crtc.gc.ca, becomes part of a publicly accessible file and will be posted on the Commission's website. This information includes personal information, such as full names, e-mail addresses, postal/street addresses, telephone and facsimile numbers, and any other personal information parties provide.

The personal information that parties provide will be used and may be disclosed for the purpose for which the information was obtained or compiled by the Commission, or for a use consistent with that purpose.

Documents received electronically or otherwise will be put on the Commission's website in their entirety exactly as received, including any personal information contained therein, in the official language and format in which they are received. Documents not received electronically will be available in PDF format.

The information that parties provide to the Commission as part of this public process is entered into an unsearchable database dedicated to this specific public process. This database is accessible only from the web page of this particular public process. As a result, a general search of the Commission's website with the help of either its own search engine or a third-party search engine will not provide access to the information that was provided as part of this public process.

The Commission encourages parties and interested persons to monitor the record of the proceeding, available on the Commission's website, for additional information that they may find useful when preparing their submissions.

Examination of documents

A list of all interventions will also be available on the Commission's website. The list is accessible by selecting "View all proceedings open for comment" from the "Public Proceedings" section of the Commission's website and clicking on the "Interventions/Answers" link associated with this notice.

The public may examine public interventions and related documents at the following Commission offices during normal business hours.

Location of Commission offices

Toll-free telephone: 1-877-249-2782

Toll-free TDD: 1-877-909-2782

Les Terrasses de la Chaudière
Central Building
1 Promenade du Portage, Room 206
Gatineau, Quebec
J8X 4B1
Tel.: 819-997-2429
Fax: 819-994-0218

Regional offices

Metropolitan Place
99 Wyse Road
Suite 1410
Dartmouth, Nova Scotia
B3A 4S5
Tel.: 902-426-7997
Fax: 902-426-2721

205 Viger Avenue West
Suite 504
Montréal, Quebec
H2Z 1G2
Tel.: 514-283-6607

55 St. Clair Avenue East
Suite 624
Toronto, Ontario
M4T 1M2
Tel.: 416-952-9096

360 Main Street
Suite 970
Winnipeg, Manitoba
R3C 3Z3
Tel.: 204-983-6306
Fax: 204-983-6317

2220 – 12th Avenue
Suite 620
Regina, Saskatchewan
S4P 0M8
Tel.: 306-780-3422

403 – 4th Avenue South-West
Suite 100
Calgary, Alberta
T2P 3N2
Tel.: 403-292-6660
Fax: 403-292-6686

858 Beatty Street
Suite 290
Vancouver, British Columbia
V6B 1C1
Tel.: 604-666-2111
Fax: 604-666-8322

Secretary General

Related documents

- *Call for comments on proposed French-language Closed Captioning Quality Standards*, Broadcasting Notice of Consultation CRTC 2011-489, 15 August 2011
- *Accessibility of telecommunications and broadcasting services*, Broadcasting and Telecom Regulatory Policy CRTC 2009-430, 21 July 2009
- *Unresolved issues related to the accessibility of telecommunications and broadcasting services to persons with disabilities*, Broadcasting Notice of Public Hearing CRTC 2008-8/Telecom Public Notice CRTC 2008-8, 10 June 2008
- *Transfer of effective control of CHUM Limited to CTVglobemedia Inc.*, Broadcasting Decision CRTC 2007-165, 8 June 2007
- *A new policy with respect to closed captioning*, Broadcasting Public Notice CRTC 2007-54, 17 May 2007