



10 August 2015

John Traversy
Secretary General
CRTC
Ottawa, ON K1A 0N2

Filed electronically

Dear Secretary General,

Re: *Amendments to conditions of licence related to closed captioning and group-based licensing (Application 2015-0701-3, 3 July 2015)*

- 1 The Forum for Research and Policy in Communications (FRPC) is a non-profit and non-partisan organization established to undertake research and policy analysis about communications, including broadcasting. The Forum supports a strong Canadian broadcasting system that serves the public interest.
- 2 We are submitting comments about the above-noted application by Shaw Media Inc. (Shaw) which seeks amendments to include its regional television news service, BC News +1 (or BCN+1) in the Shaw ownership group, and to condition of licence 5 of the BCN+1 licence, which sets standards for closed captioning, so that it may “develop promising innovations in the closed captioning of live programming”.¹
- 3 We agree with Canadian Media Producers Association that Shaw has provided no evidence to support its proposal to include BCN+1 in its ownership group, that the benefits of granting Shaw’s request flow solely to Shaw, and that the appropriate time for Shaw to make this request is when Shaw’s television services are renewed. We do not support this amendment.
- 4 We do support Shaw’s request to amend its condition of licence for closed captioning, provided changes are made to protect and serve the public interest.
- 5 Our suggestions have to do with
 - the duration of the testing program

¹ Shaw, *Application for Amendments to the Licence for BCN+1*, App. No. 2015-0701-3 (3 July 2015) at para. 2 [Shaw application].

- the definition of a successful outcome
- potential problems during the testing
- the involvement of national associations for the deaf or hard of hearing, and
- the timing of evaluations.

6 We set out our concerns and our recommendations after a brief discussion of the context in which this application is being heard.

I Context

A Captioning

7 Captioning enables the hundreds of thousands of people who have difficulty hearing or who are deaf. Statistics Canada estimates that in 2012 almost nine hundred thousand people (874,590) over the age had a hearing disability.²

8 Captioning also serves the hearing population – television sets in public places such as airports and food courts often display captioned programs as the sets' volume controls do not work or are ineffective in large public areas. Some people use captioning when they are learning to read or speak other languages.

9 Closed captioning is not new: it was first demonstrated almost half a century ago at the First National Conference on Television for the Hearing Impaired in Nashville, Tennessee, in 1971.³ In 1979 the CRTC asked the CBC to study the possibility of providing captioning “to permit the many thousands of Canadians to enjoy more fully the programming to which they are entitled.”⁴

10 Several decades later, in 2008, the CRTC launched a converged broadcasting and telecommunications proceeding to address still-unresolved issues related to the accessibility of broadcasting and telecommunications by persons with disabilities.⁵ In 2009 it warned television broadcasters that it would require them to improve the quality of closed captioning they offered.⁶ In early 2011 an English-language Closed

² Statistics Canada, *Canadian Survey on Disability, 2012*, cat. 89-654-X, Table 3.1 (“Adults with disabilities by type, sex and age group, Canada, 2012”) <http://www.statcan.gc.ca/pub/89-654-x/2013001/tbl/tbl3.1-eng.htm>.

³ Mary Bellis, “Closed Captioning” online: about.com “Inventors” <<http://inventors.about.com/library/inventors/blclosedcaptioning.htm>> (accessed 22 November 2010).

⁴ *Renewal of the Canadian Broadcasting Corporation's television and radio network licences*, Decision CRTC 79-320 (Ottawa, 30 April 1979) at 40.

⁵ *Unresolved issues related to the accessibility of telecommunications and broadcasting services to persons with disabilities*, Broadcasting Notice of Public Hearing 2008-8 and Telecom Public notice 2008-8, (Ottawa, 10 June 2008), <http://www.crtc.gc.ca/eng/archive/2008/n2008-8.htm>.

⁶ *Accessibility of telecommunications and broadcasting services*, Broadcasting and Telecom Regulatory Policy CRTC 2009-430, (Ottawa, 21 July 2009), <http://www.crtc.gc.ca/eng/archive/2009/2009-430.htm>.

- Captioning Working Group submitted a report on captioning standards to the CRTC, and in 2012 the CRTC established closed captioning quality standards for English-language television broadcasters which entered into effect the same year.⁷
- 11 After the CRTC established closed captioning standards for television broadcasters, the English-language broadcasters group submitted another report to the CRTC on the improvement of closed captioning quality, in October 2014. Having devoted “[m]any hours” to the discussion of systems “that would better reflect quality with respect to accuracy”,⁸ the broadcasters decided that it would ask for proposals to help captioners achieve quality captioning, and for the CRTC to modify the verbatim test to reflect ‘equivalent experience’.⁹
- 12 The CRTC called for comments on the English-language broadcasters’ proposals on 22 July 2015, and set 22 September 2015 as the deadline for receiving comments.¹⁰
- B BC News + 1**
- 13 Shaw submitted its application regarding BCN+1 on 3 July 2015.
- 14 It says that BCN+1 has almost a million (880,000) subscribers, and is available in almost half (45%) of the households in British Columbia.¹¹
- 15 While it is unclear how many of the service’s subscribers are deaf or hard of hearing, FRPC notes that according to Statistics Canada, people with hearing loss made up 3.4% of the population of British Columbia in 2012.¹² The province’s hard-of-hearing population represented 15% of Canada’s total hard-of-hearing population aged 15 years or over.¹³
- 16 Shaw says that BCN+1 now captions roughly 64 hours of live programming each week.¹⁴ It says that its “pilot project will combine new captioning technology with existing

⁷ *Quality standards for English-language closed captioning*, Broadcasting Regulatory Policy CRTC 2012-362, (Ottawa, 5 July 2012), <http://www.crtc.gc.ca/eng/archive/2012/2012-362.htm>.

⁸ English-language broadcasters group, *Report on Efforts to Improve the Quality of Closed Captioning*, (31 October 2014), http://www.crtc.gc.ca/eng/BCASTING/ann_rep/bmt_cbc_rm_sm.pdf, at para. 5.

⁹ *Ibid.*, at para. 10.

¹⁰ *Call for comments on the English-language closed captioning quality standard related to the accuracy rate for live programming*, Broadcasting Notice of Consultation CRTC 2015-325 (Ottawa, 22 July 2015), <http://www.crtc.gc.ca/eng/archive/2015/2015-325.pdf>.

¹¹ Shaw application, *supra* note 1, at para. 18.

¹² According to Statistics Canada’s CANSIM Table 115-0003, in British Columbia in 2012, 130,670 people aged 15 years and over had hearing problems, while CANSIM Table 051-0001 shows that 3,862,747 people aged 15 years and over lived in British Columbia.

¹³ CANSIM Table 115-0003 identified 874,590 people with hearing loss in 2012.

¹⁴ Shaw application, *supra* note 1, at para. 22.

- methods of steno-captioning and teleprompter-based captioning.”¹⁵ If the CRTC approves “a more flexible set of captioning standards”, and its pilot project “achieves significant progress in the development of alternative captioning methods”, Shaw says it may implement its new methods on its “other properties while remaining in full compliance with regulatory requirements.”¹⁶
- 17 Shaw states that its “plan is to develop and test a hybrid captioning system that takes advantage of current methods while integrating new technology.”¹⁷ It lists five software options as examples of the products it plans to test,¹⁸ and says that it plans to “monitor and evaluate two programs per month” using the captioning technology being tested.¹⁹
- 18 Shaw does not explicitly state whether – in the event that the pilot project is successful – it will share its new technology with others. In our view, if Shaw’s pilot project is successful the public interest would be served by Shaw’s making its findings available to other broadcasters, so that they may use this technology to improve the quality of captioning on their television services.

II Duration of the testing program

- 19 Shaw says that it is prepared to submit a report to the CRTC “after one year of development to advise on the progress of this initiative.”²⁰
- 20 The question this raises for FRPC is whether Shaw is seeking a time-limited amendment to its condition of licence on captioning accuracy. If no limit is set, the amendment in effect becomes permanent: in our view, this would not serve the public interest, or the interests of people with hearing loss in British Columbia.
- 21 FRPC suggests that the Commission set a limit to the duration of the relief being sought by Shaw. If the limit expires without Shaw developing a successful hybrid captioning system, the company could re-apply for the same regulatory relief, with evidence to justify the CRTC’s granting of the application.
- 22 We suggest a two-year limit: if Shaw tests a new approach every three months, it would then have eight opportunities to test captioning processes.

Recommendation: the CRTC should grant Shaw the relief it is requesting for two years after the date on which it launches its first broadcast captioning test.

¹⁵ *Ibid.*, at para. 3.

¹⁶ *Ibid.*, at para. 11.

¹⁷ *Ibid.*, at para. 25.

¹⁸ *Ibid.*, at paras. 26-31.

¹⁹ *Ibid.*, at para. 32.

²⁰ *Ibid.*, at para. 35.

III The definition of a successful outcome

- 23 Shaw notes that its “goal is to devise a more efficient and cost-effective means of delivering quality closed captioning.”²¹
- 24 This description of Shaw’s goals implies that a captioning process will be considered successful if delivers captions with the same error rates as Shaw’s current captioning processes, but at a lower cost. As the CRTC recently said, however, “poorly captioned programming is equivalent to uncaptioned programming.”²²
- 25 Elsewhere in its supplementary brief, though, Shaw says that its testing program is being established to devise a captioning process that is “better”,²³ “improved”²⁴ or “superior”.²⁵ These vague terms imply that the captioning process that Shaw is attempting to develop will deliver benefits – but they do not clearly state what these benefits will be, or who will obtain them.
- 26 In our view, the public interest would be better served if Shaw’s captioning tests relate specifically to the factors set out in Broadcasting Regulatory Policy CRTC 2012-362 when it considered the issue of captioning quality.²⁶ These factors relate to:
- lag time for live programming between audio and captions - must not exceed 6 seconds, averaged over the program
 - accuracy rate for pre-recorded programming – 100%
 - accuracy rate for live programming – 95%
 - other on-screen information- not blocked by captions
 - errors - corrected prior to re-broadcast
 - speed of captions during live programming and children’s programming
 - captioning of emergency alerts, and
 - monitoring.
- 27 Shaw would obviously be free to measure other factors when it conducts its tests, but since it is seeking permission to conduct its tests on-air, it should at a minimum measure the results of its tests using the quantifiable factors already set by the CRTC with respect to closed captioning in Broadcasting Regulatory Policy CRTC 2012-362: lag time, accuracy rate for pre-recorded and live programming, on-screen blocking, corrected errors, speed of captions and captioned emergency alerts.

²¹ *Ibid.*, at para. 2.

²² *Call for comments on the English-language closed captioning quality standard, supra* note 10, at para. 13.

²³ Shaw application, *supra* note 1, at para. 5.

²⁴ *Ibid.*, at para. 7.

²⁵ *Ibid.*, at para. 14.

²⁶ *Quality standards for English-language closed captioning, Appendix 1.*

Recommendation: the CRTC should only grant Shaw the relief it is requesting if Shaw commits to measure outcomes in terms of, but not limited to, the factors set out in Broadcasting Regulatory Policy CRTC 2012-362.

- 28 FRPC is also concerned that the benefits from a testing program whose only goal is to save Shaw money will flow entirely to Shaw. The result would be that during the entire testing period captioning users might have to suffer inconsistent captioning quality, and at the end of the process still be faced with the same level of errors in captioned programs that they encountered before the testing began. This one-sided bargain would not serve the interests of captioning users, or the public interest in general.
- 29 A testing program that focuses on efficiency and cost-effectiveness is also unlikely to achieve the goal set by the CRTC in 2009, which emphasized the need to improve captioning quality: “an acceptable error rate must be established and applied in order to determine if the quality of closed captioning is improving.”²⁷
- 30 If the CRTC grants this application, it should clearly state that the tests’ purpose must be to improve the quality of captioning by reducing errors in live programs. If this requirement is not stated, the CRTC will be allowing Shaw to gain the entire benefit of lower captioning costs, while continuing to deprive captioning users of the benefits of fully accessible programming.

Recommendation: the CRTC should only grant Shaw the relief it is requesting if the purpose of the testing program is to reduce error rates in captioning.

IV Potential problems during testing

- 31 Shaw argues that “BCN+1 is the optimal environment in which to develop new methods of live captioning” because “it has a relatively limited subscriber base”, meaning that “any variances in captioning quality will affect fewer viewers than on a national service ...”²⁸. It says that it is “committed to ensuring that viewers continue to receive a quality captioning experience”,²⁹ and also says that it “will test all new technologies off-line prior to using them live-to-air”.³⁰ Shaw also says that it now receives “daily and weekly fault reports from each of the providers which detail any issues encountered and the interaction between the captioning provider and the playout centre, all of which contribute to improving the accuracy of captioning.”³¹

²⁷ *Accessibility of telecommunications and broadcasting service*, *supra* note 6, at para. 88 (underlining added).

²⁸ Shaw application, *supra* note 1, at para. 8.

²⁹ *Ibid.*, at para. 12.

³⁰ *Ibid.*, at para. 32.

³¹ English Language Broadcasters Group, *Report on Efforts to Improve the Quality of Closed Captioning*, (Ottawa, 31 October 2014),

- 32 It is unclear from Shaw's proposal what it will do if – contrary to its best intentions – a specific method being tested does not improve, but actually worsens viewers' captioning experience by permitting higher error rates or greater time lags. In our view, it would be unethical and contrary to the public interest to permit a captioning test to continue if it leaves those who rely on captioning worse off than they were before the test began.
- 33 On the assumption that Shaw will continue to receive daily reports about captioning errors, the CRTC should protect the interests of deaf and hard-of-hearing viewers by requiring Shaw to terminate its use of a given captioning process if it results in significantly higher levels of error after three months. We suggest a three-month period to limit the time in which viewers with hearing loss who rely on BCN+1 are deprived of its full service due to defective captioning. The first month should be used to evaluate the error rates for a given captioning process, and if the error rates do not improve (ie, fewer errors) over the next two months, Shaw should discontinue live-to-air use of the process: this will protect the public interest in having low-error captioned news programming available. Shaw could resume off-line testing of the terminated process if it wished and, if able to achieve results superior to its current system, could resume live-to-air testing at another time.

Recommendation: the CRTC should include a requirement in Shaw's amended condition of licence that if a captioning process being tested by Shaw results after three months in higher levels of error than BCN+1 now achieves, Shaw will discontinue live-to-air testing of that process.

V Involvement of national associations for the deaf or hard of hearing

- 34 Shaw has said that it will "consult with a third-party focus group of closed captioning users who will provide us with survey feedback at periodic intervals about their experience using captions on the service."³² It says that the focus group participants will come from its "existing contacts in [the hearing-impaired and Deaf] communities in British Columbia, and by working with Accessible media Inc. to draw from their pool of captioning users."³³
- 35 FRPC respectfully submits that the focus group should include several representatives of national associations for the Deaf or hard of hearing, whose time would be remunerated by Shaw. Having sought improvements to television captioning for decades, these organizations have valuable expertise and experience that would improve the quality and value of commentary from the focus groups, ultimately benefitting broadcasters who use closed captioning.

http://www.crtc.gc.ca/eng/BCASTING/ann_rep/bmt_cbc_rm_sm.pdf, Appendix E (Shaw Individual initiatives), at 50.

³² Shaw application, *supra* note 1 at para. 13.

³³ *Ibid.*, at para. 33.

Recommendation: If the CRTC approves Shaw’s application, it should include a requirement that Shaw invite at least three national groups to participate in the design of the tests, the methods of evaluation, and as members of the focus groups.

- 36 We also suggest that Shaw endeavour to ensure that the same people form the focus groups throughout the testing process, to ensure a more consistent level of evaluation. FRPC also suggests that the focus groups be permitted, if they wish, to file their own reports with the CRTC; this will ensure that the participants’ views are fully and accurately transmitted to Canada’s regulatory authority, thereby assuring transparency.

Recommendation: If the CRTC approves Shaw’s application, its decision should include a statement that focus groups would be free to submit their own written reports to the Commission.

- 37 As for the survey results mentioned by Shaw,³⁴ FRPC respectfully submits that Shaw be required to obtain professional survey expertise from Canadian universities, rather than from other third parties, regarding the approach to measuring the concepts of interest, and the size of sample required to obtain meaningful results that can be generalized to the population as a whole.

Recommendation: If the CRTC approves Shaw’s application, it should include a requirement that Shaw consult with faculty at an accredited Canadian post-secondary institution who are experienced in survey research design.

VI Timing of evaluations

- 38 While Shaw states that its goal is to develop a hybrid technology, it lists four software products that it may also use on “two programs per month”.³⁵ It is unclear when original episodes of these programs will be broadcast – several times daily, once daily, once a week ...? It is also unclear whether repeat programs will be broadcast using the original captioning, or whether captioning errors will be corrected before the programs are rebroadcast. Clarification of these points are needed to ensure that focus group participants know when the programming they are supposed to be evaluating, will actually be broadcast

- 39 Shaw then says that it will gather focus group participants every six months. However, as noted above Shaw also says that it receives “daily and weekly fault reports from each of the providers which detail any issues encountered and the interaction between the

³⁴ *Ibid.*, at para. 13.

³⁵ *Ibid.*, at para. 32.

captioning provider and the playout centre, all of which contribute to improving the accuracy of captioning.”³⁶

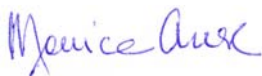
- 40 It is unclear why Shaw plans to unite focus groups every six months, when it assesses the quality of closed captioning daily and weekly. We suggest that more frequent meetings of the focus groups would assist Shaw in identifying viewers’ problems with the systems being tested, and would also demonstrate the seriousness with which Shaw is taking the participants’ comments and suggestions. Meeting less frequently could leave the impression – true or not – that focus group members’ comments are merely token.

Recommendation: the CRTC should require quarterly focus group evaluations, rather than biannual evaluations.

- 41 FRPC also urges the Commission to encourage Shaw to compensate focus group participants for their time, as is the practice with other focus groups used by professional marketing research organizations. Suggesting that those with hearing loss should volunteer their time implies that their time has no value, or that their contribution to Shaw’s testing program has no value – neither of which, of course, is the case.

In conclusion, Mr. Traversy, FRPC has appreciated the opportunity to comment on Shaw’s innovative proposal. We support it, provided the concerns we have raised above are addressed. FRPC looks forward to the opportunity of reviewing other comments submitted in this proceeding, and to Shaw’s reply. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely yours,



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³⁶ English Language Broadcasters Group, *Report on Efforts to Improve the Quality of Closed Captioning*, (Ottawa, 31 October 2014), http://www.crtc.gc.ca/eng/BCASTING/ann_rep/bmt_cbc_rm_sm.pdf, Appendix E (Shaw Individual initiatives), at 50.