



Telecom Decision CRTC 2015-482

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Bruce Power – Application to implement wireless public alerting

*The Commission **denies** an application from Bruce Power in which the company requested the immediate implementation of wireless emergency alerting using available technologies. However, the Commission recognizes the importance of such a service to help safeguard the lives of Canadians, and therefore announces its intention to launch a full public proceeding into the issue of a wireless public alerting service by the end of the first quarter of 2016.*

Introduction

1. The Commission received an application from Bruce Power, dated 29 May 2015, in which Bruce Power requested that the Commission order wireless service providers (WSPs) to implement wireless public alerting (WPA). Bruce Power included letters of support from the Municipality of Kincardine, the Town of Saugeen Shores, and Canadian Nuclear Laboratories with its application.
2. Bruce Power submitted that because the vast majority of Canadians own mobile devices and carry them throughout the day, the distribution of alerts via these devices would be a practical way to notify Canadians of imminent threats to life and property.
3. Accordingly, Bruce Power requested that the Commission
 - require WSPs to carry and distribute wireless public alerts by 30 September 2015;
 - direct WSPs to use existing technologies and solutions; and
 - direct WSPs to implement a WPA solution that does not discriminate against Canadians who do not own compatible handsets and/or who are not served by long-term evolution (LTE) networks.
4. The Commission received interventions regarding Bruce Power's application from municipal and provincial governments, WSPs, industry organizations, and individuals. The public record of this proceeding, which closed on 13 July 2015, is available on the Commission's website at www.crtc.gc.ca or by using the file number provided above.

Background

5. In Broadcasting Regulatory Policy 2014-444, the Commission announced that broadcasting undertakings would be required to distribute emergency alert messages to Canadians.
6. The regulatory policy was the culmination of a public process in which the Commission examined the need for regulatory intervention to ensure that Canadians are informed of imminent peril, and that emergency alerts input into the National Alert Aggregation and Dissemination System would be distributed by broadcasters to the general public.
7. In that regulatory policy, the Commission strongly encouraged the use of digital media and mobile platforms to alert the public to imminent or unfolding dangers, particularly given the increase in the use of mobile devices by Canadians. The Commission further noted that Public Safety Canada had requested that the CRTC Interconnection Steering Committee (CISC) initiate a new task to assist in the development of the technical specifications and network design of a WPA service for Canada. Subsequently, the Defence Research and Development Canada Centre for Security Science, through the Canadian Safety and Security Program, initiated a pilot project, based on the technical specifications and network design developed by CISC, to build, test, and operate an effective WPA service (the pilot project). The Commission also noted in Broadcasting Regulatory Policy 2014-444 that it would await the results of these initiatives.

Should the Commission direct WSPs to implement WPA?

8. Bruce Power submitted that while the Commission had ordered broadcasting undertakings to participate in the distribution of emergency alerts, WSPs have not been issued a similar order under the *Telecommunications Act* (the Act).
9. Bruce Power submitted that while the work being undertaken by CISC and Defence Research and Development Canada is beneficial, it is futuristic in nature and the process is too slow and lengthy, leaving Canadians at risk. In its view, with respect to the activities already underway to develop a WPA service, time will be required to ensure that a robust system is in place that reaches all Canadians; otherwise, it will discriminate against those who have not subscribed to upgrades and purchased compatible phones, LTE subscriber identification module (SIM) cards, and voice and/or data service. Bruce Power submitted that this would be contrary to subsection 27(2) of the Act.¹ Finally, Bruce Power submitted that the pilot project includes the participation of only one WSP, and that, therefore, additional time is required for other WSPs to put similar services in place.

¹ Subsection 27(2) of the Act states the following: “No Canadian carrier shall, in relation to the provision of a telecommunications service or the charging of a rate for it, unjustly discriminate or give an undue or unreasonable preference toward any person, including itself, or subject any person to an undue or unreasonable disadvantage.”

10. Bruce Power indicated that technology is readily available today to deploy a WPA service. It cited a collaborative demonstration that it, Futureshield, Pelmorex Media Inc., the Province of Ontario, and TELUS Communications Company (TCC) undertook in November 2014 using technology referred to as “location-based Short Message Service” (LB-SMS). Bruce Power submitted that this demonstration proved that WPA could be implemented in Canada today on current wireless phones.
11. Bruce Power argued that immediate implementation of emergency alert distribution via mobile devices is possible, given the success of the above-noted demonstration and the fact that other jurisdictions around the world have already deployed WPA services that use a host of technical solutions that are available today.

Parties in favour of Bruce Power’s application

12. Interveners generally supported the idea of a WPA service, but some had concerns regarding certain aspects of Bruce Power’s application.
13. The County of Bruce submitted that a WPA service would be useful in preventing events such as the *E. coli* outbreak in Walkerton, Ontario. The Brampton Emergency Management Office submitted that it took a significant amount of time to implement an emergency alerting system within the broadcasting system, and hoped that it would not take as long to implement a system using mobile devices.
14. Alberta’s Northeast Region Community Awareness Emergency Response argued that no matter which solution is eventually implemented, it is important that the system not rely on individuals needing to opt in, i.e. the system should reach all individuals regardless of whether or not they are registered. Similarly, Strathcona County submitted that it had established its own system, known as SC Alerts, which relies on individuals signing up. After over a year, penetration is still below 10%, illustrating that opt-in systems are much less effective than those that deliver alerts to individuals automatically.
15. The Emergency Measures and Protective Services division of the Government of Manitoba and NetAlerts Incorporated stated that the Commission’s role should be to remove any obstacles facing the industry in adopting the chosen system, and also submitted that Commission-mandated participation by the wireless industry would likely be required. Both of these interveners called on the Commission to initiate action sooner rather than later on the policy matters associated with implementing WPA.
16. Ontario’s Office of the Fire Marshal and Emergency Management (OFMEM) noted that it is a partner in the pilot project. OFMEM submitted that while it supports LB-SMS alerting as a solution, its support should not be at the cost of the work being accomplished on the pilot project. Finally, OFMEM noted its participation in the previous LB-SMS demonstration, and cited some related concerns, such as the process, the excessive time needed to deliver the message, and the current lack of policy, procedures, standardization, and prescribed security measures. While

OFMEM favoured ongoing support for LB-SMS as a technological solution, it recommended that a development process similar to that of the pilot project be undertaken for LB-SMS.

17. Alberta's Deputy Minister of Municipal Affairs submitted that a full WPA service would likely be a mixture of both LB-SMS and Cell Broadcasting.² He submitted that market forces alone would not solve the issue and that direction from the Commission would be required. Furthermore, he pointed to the recent Alert Ready media campaign in the broadcasting system as having raised public awareness and heightened the need to move more rapidly than initially planned on WPA.
18. The Calgary Emergency Management Agency expressed concerns regarding the pilot project's reliance on LTE technology, which it contended would prevent some people from receiving alerts. As such, it proposed the creation of a WPA service that uses LB-SMS technology, as suggested by Bruce Power.

Parties opposed to Bruce Power's application

19. Bell Mobility Inc. (Bell Mobility) submitted that the application should be dismissed as being unwarranted given the pilot project that is already underway. The company indicated that WSPs are very involved in the creation of a WPA service through their participation in the pilot project. Bell Mobility further submitted that the timeline suggested by Bruce Power is unrealistic, and that the current pilot project work involves reasonable timelines and appropriate supervision. Bell Mobility also argued that Cell Broadcasting is a fully standardized technology, and has benefits over LB-SMS, citing issues related to network congestion and the ability to prioritize alert messages.
20. Saskatchewan Telecommunications (SaskTel) argued that the application should be denied. It submitted that the process leading to the implementation of the directives set out in Broadcasting Regulatory Policy 2014-444 required a great amount of time and testing, and that therefore, the short timelines proposed by Bruce Power are unworkable. The company also argued that there are inherent limitations in using LB-SMS. In particular, SaskTel pointed out that on its network, SMS messages are limited to 160 characters, including the sender's number, which drastically shortens message content. The company submitted that Cell Broadcasting is therefore the appropriate technical path to follow going forward.
21. The Canadian Wireless Telecommunications Association (CWTA) also referred to the ongoing work and co-operation of the wireless industry on the pilot project as being the key reason to deny Bruce Power's application. It submitted that the proliferation of LTE in Canada is why Cell Broadcasting was chosen over LTE for

² LB-SMS and Cell Broadcasting are two different technology solutions that can be used to implement a WPA service. While LB-SMS makes use of the existing SMS features of mobile devices, Cell Broadcasting makes use of a different technology in which alerts can be broadcast to all cell phones in a particular area over a dedicated channel. Cell Broadcasting makes use of specific standards and handset functionality present only in newer handsets.

the pilot project. The CWTA submitted that this will enable the implementation of WPA service on leading-edge network technology, making the service more sustainable and capable of incorporating new technological advances.

22. Rogers Communications Partnership (RCP) disagreed with the assertion that LB-SMS technology is the only technology to be used for WPA service, and requested that the application be denied. RCP noted that all the wireless access technologies in its footprint support Cell Broadcasting. It also submitted that the proper way to implement a WPA solution is to adopt network infrastructure that is commercially available and supported by standards set by accredited organizations, as is being done with the pilot project. RCP submitted that LB-SMS may be an appropriate technology for use in small-scale deployments, but argued that it would not work for large-scale deployments due to issues such as time to relay messages and the possibility of network congestion.
23. In its intervention, TCC explained its role in the LB-SMS trial described by Bruce Power in its application, and clarified the limited nature of that particular test, stating that it was only a high-level feasibility test. TCC submitted that the test was not appropriate for validating large-scale deployment and usage. Similar to many other WSP interveners, TCC submitted that due process and testing against requirements is the correct approach, which is how the current pilot project is being undertaken. TCC submitted that the Commission should therefore deny Bruce Power's application.
24. The Commission notes that Bruce Power did not provide a reply to these interventions, despite having that right pursuant to the *Canadian Radio-television and Telecommunications Commission Rules of Practice and Procedure*.

Commission's analysis and determinations

25. With regard to Bruce Power's proposal that a WPA service be implemented within four months, such a time frame is unrealistic. As noted by several parties, significant work would need to be undertaken for large-scale deployment to occur. A requirement to implement WPA by a specific date would be inappropriate without adequate time to create technical standards, testing procedures, and deployment procedures. In addition, it would be more appropriate to have a broad public proceeding to consider both the policy and technical matters in a more fulsome manner, with participation by all affected WSPs and other stakeholders.
26. The pilot project work is being undertaken under the direction of numerous agencies and partners, has stable funding, and is based on a specific timeline. Although this project and the associated work may not provide the only option for a WPA service, they have garnered industry and government support, and might therefore be more likely to yield positive results for large-scale implementation.
27. In light of the above, the Commission **denies** Bruce Power's application.

28. Notwithstanding the above determination, in the *CRTC Three-Year Plan 2015-2018*, the Commission indicated its ongoing support and commitment to ensuring that additional measures to safeguard the lives of Canadians through emergency alerting are implemented. The Commission noted that for fiscal year 2016-2017, it would monitor the wireless carrier industry's developments with respect to the pilot project and WPA implementation. The Commission also indicated that it may launch a public proceeding regarding a WPA service if required.
29. The Commission notes the general expression of support by interveners in the present proceeding regarding the implementation of a WPA service. Given the issues raised in this proceeding, a more fulsome public process on the need for a WPA service that makes use of mobile wireless networks and includes all WSPs is appropriate. Accordingly, the Commission intends to launch a broad public consultation before the end of fiscal year 2015-2016, accelerating the timelines indicated in the *CRTC Three-Year Plan 2015-2018*.

Secretary General

Related documents

- *Amendments to various regulations, the standard conditions of licence for video-on-demand undertakings and certain exemption orders – Provisions requiring the mandatory distribution of emergency alert messages*, Broadcasting Regulatory Policy CRTC 2014-444 and Broadcasting Orders CRTC 2014-445, 2014-446, 2014-447, and 2014-448, 29 August 2014