



**Sent via GC Key**

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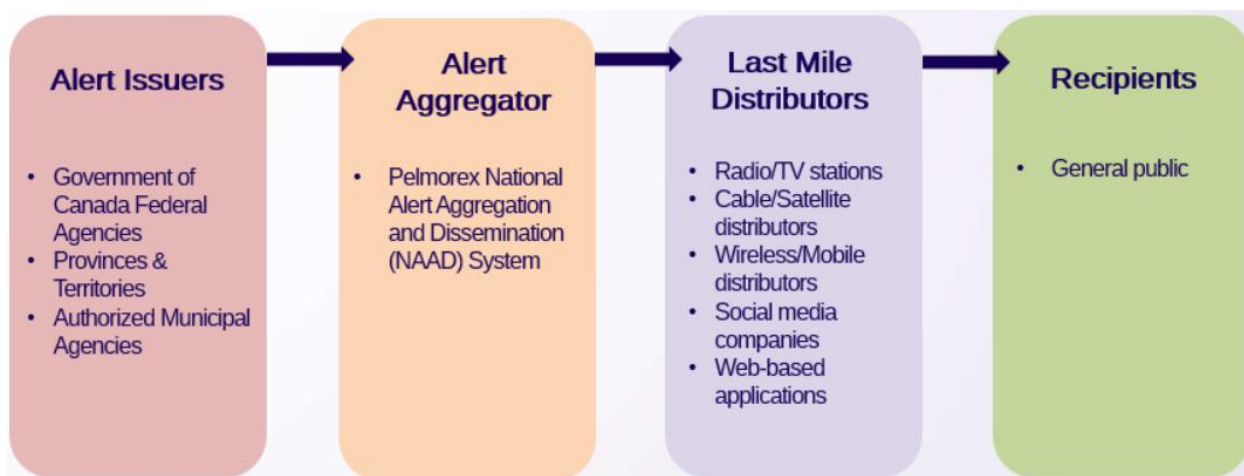
**Re: Response of the Canadian Association of Broadcasters to CRTC Request for Information regarding *Improving the public alerting system* Telecom and Broadcasting Notice of Consultation CRTC 2025-180**

1. The Canadian Association of Broadcasters (CAB) is the national voice of Canadian privately-owned and operated broadcasters. Representing small, medium and large radio and television stations across the country, and national discretionary services, the CAB advocates for a vibrant, diverse, and competitive broadcasting system that serves all Canadians.
2. Since its founding in 1926, the CAB has been a trusted leader in policy development, regulatory affairs, and public dialogue, working closely with government, regulators, and industry stakeholders. Our members are committed to delivering high-quality Canadian content, supporting local news and journalism, and reflecting the voices and stories of communities from coast to coast to coast.
3. As the broadcasting landscape evolves, the CAB advocates for fair and forward-looking policies that ensure Canadian broadcasters can thrive in a digital age, protecting the sustainability of local media, promoting innovation, and strengthening Canadian identity and culture.
4. With these broad objectives in mind, the CAB is pleased to respond to the Commission's questions of 23 April 2026, starting with an overview of the role and place of radio and television stations as last mile distributors in the overall National Public Alerting System (NPAS).

## Overview of radio and television stations in the NPAS

5. The NPAS is a collaboration between many partners that each have a role to play in addressing the issues raised by the Commission in its notice of consultation and in its request for information. Understanding this multilayered system is critical to understanding the place and role of radio and television stations in the system and the changes that might be required to accommodate additional languages and support ASL/LSQ templates.

### The National Public Alerting System



Authorized government agencies (AGA) are the alert issuers and determine the content of alerts

Pelmorex manages the National Alert Aggregation System (NAAD) to receive alerts from AGAs and distribute them to last mile distributors (LMDS)

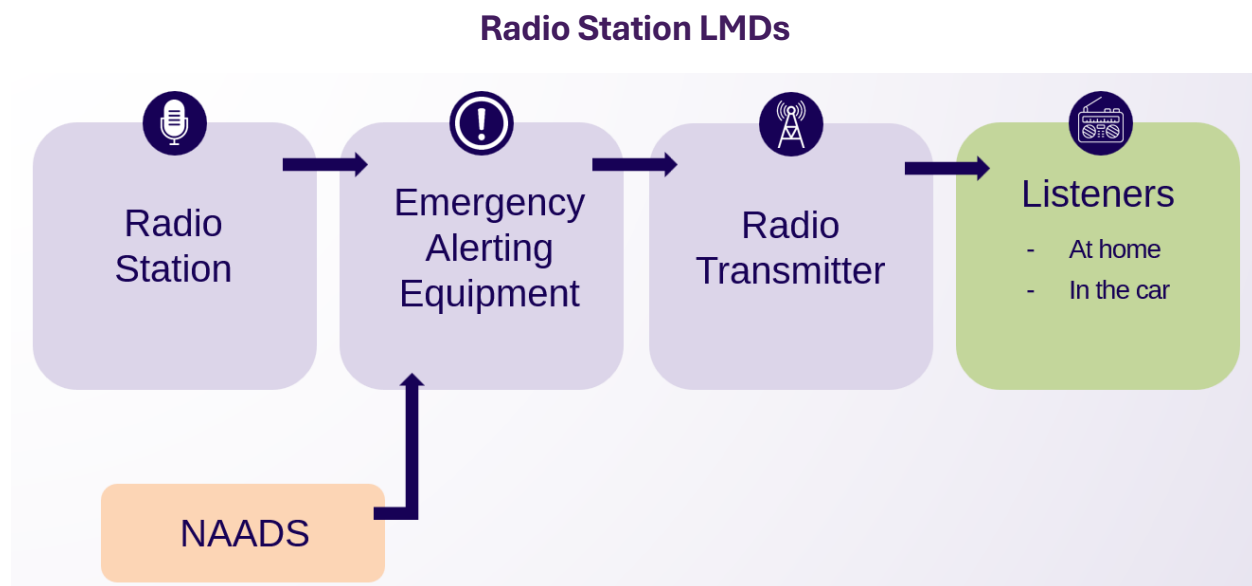
LMDs receive the alerts and relay them to the public.

The public receives alerts via radio, television, cell phones, social media/web apps, or via broadcast distribution undertakings (BDUs)

6. In this system, it is the Alert Issuers/AGAs that create, format and issue emergency alerts, which are then distributed via the NAAD system to LMDs. LMDs do not change or modify the content of the emergency alert messages. In part, this is to ensure that the meaning and intent of the alerts is not inadvertently changed. The system also ensures that messages are passed through to the public as quickly as possible.
7. It is also important to keep in mind that radio and television stations are but two LMDs in the system, providing alerts to radio listeners and *over-the-air-only* television viewers. (Viewers watching television via a BDU receive their alerts from the BDU.) As set out above, alerts are *also* provided by range of other LMDs, with mobile phones being the most ubiquitous.

### Radio stations within the NPAS

8. Within radio stations, their emergency alerting equipment continuously monitors the NAADS, which is programmed to only respond to alerts targeted to any area with the station's geographic coverage area.
9. When an emergency alert is received from NAADS, the radio station's emergency alerting equipment:
  - receives the audio file from the Pelmorex text-to-speech (TTS) conversion of the text message,
  - interrupts the radio station programming,
  - sounds the Alert Ready tone, and
  - broadcasts the emergency alert audio to the entire geographic coverage area.
10. If an audio file is not received, internal TTS software creates the audio.
11. This process is set out in the following diagram:



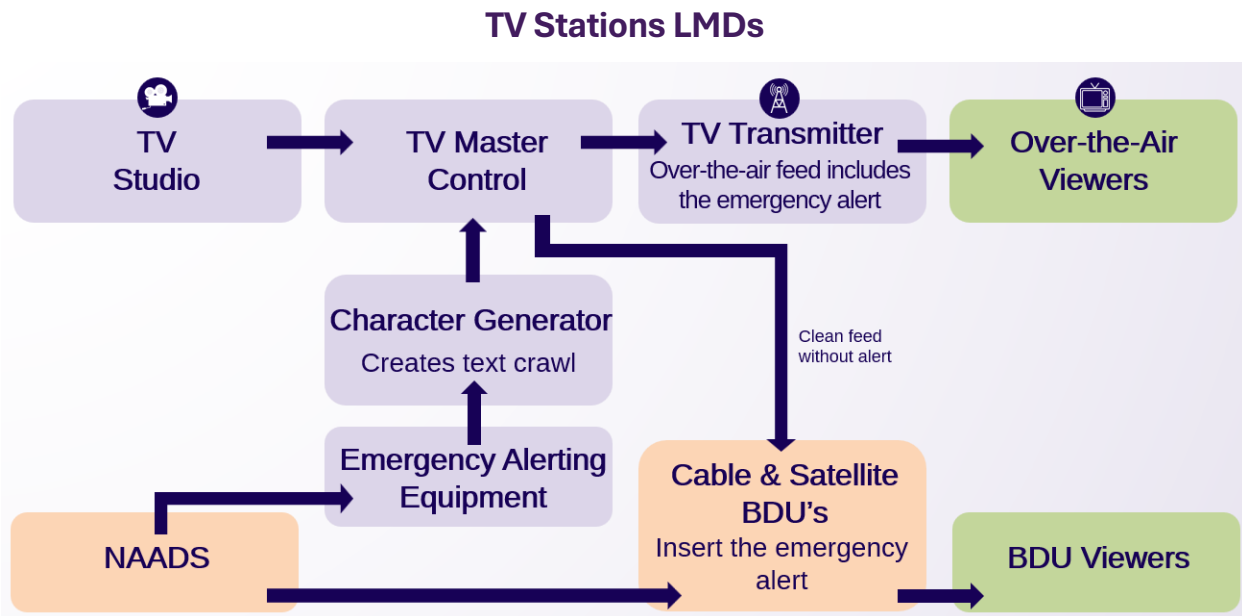
### Television stations within the NPAS

12. The system for television stations is similar, albeit more complex. Their emergency alerting equipment continuously monitors the NAADS and is programmed to only respond to emergency alerts targeted to areas within the station's geographic coverage area.
13. When an emergency alert is received from NAADS, the emergency alerting equipment:

- receives the alert message text and audio file from the Pelmorex TTS conversion of the message,
- sounds the Alert Ready tone,
- inserts the alert message text into a character generator which overlays a text crawl on a red banner on the TV station video programming,
- interrupts the TV station audio programming, and
- broadcasts the emergency alert text and audio to the entire geographic coverage area.

14. If an audio file is not received, internal TTS software creates the audio.

15. This process is set out in the following diagram:



16. In this system, as LMDs, radio and television stations have no role in generating messages or in translating them. In addition to ensuring there are no inadvertent mistakes, this ensures that messages are distributed as quickly as possible, a key consideration in emergency situations.

17. While wireless alerts only present a text message to the public, the audio version of an alert is an integral component for radio and TV audiences. In fact, it is the essential and only component of an emergency alert broadcast over radio because it is a sound-only medium.

18. Therefore, an important feature of the NAADS is the capability to automatically generate an audio file from the message using text-to-speech (TTS) software. This ability is lost if an Indigenous, or any other language, is input to software programmed for only English and French. Further, the in-studio emergency alerting equipment that receives the alert message from NAADS includes its own internal TTS software that creates a back-up audio file if the NAADS audio is not present. It similarly may not be equipped to manage languages other than English or French.

19. With this as background, the CAB now turns to answering the Commission's questions.

**1. In light of the recent issuance of alerts by Nunavut Emergency Management in Indigenous languages namely in Inuinnaqtun, and Inuktitut and the fact that the system could support Cree and Dene, identified parties are requested to address the following, to the best of their knowledge:**

- a) **Identify what changes to the NPAS are required to enable the seamless creation, issuance, and distribution of alerts in Inuinnaqtun, and Inuktitut, Cree, Dene, or any other languages other than English or French.**

20. Keeping in mind the diagrams above, changes would have to be made across the entire NPAS to enable the seamless creation, issuance, and distribution of alerts in Inuinnaqtun, and Inuktitut, Cree, Dene, or any other languages other than English or French. Particular attention would need to be paid to any new or different character sets, and thorough testing required throughout the entire NPAS chain.

21. First, the User Access System used by AGAs to generate emergency alert messages would have to be expanded to incorporate the additional languages. Critically, it is the issuing agency that would have to provide the appropriate text and audio files for the alert in the desired Indigenous (or other) languages.

22. At the LMD end, changes would need to be made to the emergency alert equipment used by radio and television broadcasters. There are three manufacturers whose equipment is typically used by broadcasters: Sage Alerting Systems, Phippen Technical Services, and Digital Alert Systems.

### *Sage Alerting Systems*

23. We understand that Sage Alerting Systems is capable of passing the four Indigenous language codes in the metadata, however, it is important to note that the Sage Endec equipment does not have the ability to perform text to speech for these languages. If an audio file were not provided by the issuer, it is unclear whether the alerting equipment would ignore the alert, broadcast silence, or broadcast gibberish. Radio stations must have an audio file provided as it is a sound only medium. For TV stations, the text received in the alert is forwarded from the Sage Endec serial port to the station character generator equipment which handles the video banner and text crawl.

24. We are currently unaware of character generators supporting Indigenous languages or other character sets.

25. Although Sage Alerting Systems continues to provide support for Canadian users, the company announced in 2024 that it has discontinued manufacturing the model 3644 used in Canada. Firmware upgrades for existing equipment may be available at additional cost. The cost will depend on the nature of the upgrades requested.

#### *Pippen Technical Services*

26. Indigenous language support is currently under development by a second manufacturer, **Pippin Technical Services**. It is not known when this will be available. Existing equipment should be upgradable for a fee. Importantly, the current equipment from Pippin is only suitable for radio stations. Support for character generation, essential for TV use, is also under development. It is also not known when this will be available.

#### *Digital Alert Systems.*

27. A third manufacturer, **Digital Alert Systems**, has indicated that major upgrades would be needed to support Indigenous languages.

28. Importantly, there are no known text-to-speech modules for the identified First Nation languages - as such it would be a requirement that an emergency alert audio file be supplied by the originator, and not reliant on the LMD system to create text-to-speech.

#### *Cost estimates*

29. CAB members believe that, in most instances, existing emergency alerting equipment and especially character generators in broadcast studios would not support Indigenous languages. Substantial upgrades or replacement would be required at considerable expense.

30. The estimated cost per station to purchase replacement emergency alerting equipment is on the order of \$4,000 to \$4,500 plus \$1,000 to \$1,500 for Indigenous language add-ons and another \$1,000 to 1,500 for third language add-ons. Further, if it is even possible to purchase character generators with Indigenous and multi-language capability (which is not yet certain), then television stations would need an estimated \$7,000 per station.

31. With some 720 commercial radio stations and 92 conventional television stations across the country, the estimated cost for just the purchase of upgraded equipment will be in the range of \$3.89 million to \$6.33 million. This is not including the cost of resources required to install, test and fully implement the new equipment.

32. Until a more detailed description of final requirements is available, it is not possible to estimate the time and cost to commission, install and test new equipment.

33. Finally, our understanding is that the alerts previously issued by Nunavut Emergency Management used a “workaround” to populate English language fields of the CAP-CP<sup>1</sup> message with Indigenous language text. This had the effect, in some instances, of displaying incorrect text.

**b) With respect to these changes, describe the work required, stakeholders involved, and estimated timeframes for implementation.**

34. Before enumerating the work required to incorporate Indigenous and other languages, two crucial points must be addressed.

35. First, if NPAS is expanded to incorporate Indigenous and other languages beyond English and French, what is the expectation on broadcasters of how these multilingual alert messages are to be presented to radio listeners and television viewers? The CAB has recommended that broadcasters should be required to air alerts in their language of CRTC licence, and optionally to include both official languages when available.

36. If an alert has several languages, are all to be presented? And in which order? Message length could become entirely impractical and ineffective. The potential impact on viewers and listeners must be a key consideration. Audience fatigue, frustration and distraction related to alert messages will worsen if messages – and program interruptions – become longer. Further, as noted above, the expansion to add multiple languages will likely require complete replacement of in-studio emergency alerting equipment and character generators. It would be an unreasonable burden and cost on broadcasters to include languages for which they have no audience.

37. Second, it must be decided which languages should be included in a potential expansion of NPAS. The CRTC has noted four Indigenous languages currently, but are there other Indigenous languages and dialects across Canada that should be considered? An unspecified number of other languages are also noted in the CRTC question. There are many languages to consider for inclusion in a country as diverse and multicultural as Canada. The CAB has recommended that multilingual capability would more appropriately be accomplished through future real-time translation in mobile devices and other consumer devices.

38. Then, a comprehensive description of the capability and functionality of the new multilingual NPAS will be required before a detailed technical design of the affected components could be undertaken. This step would have to include input and collaboration with all stakeholders to ensure the expectations are practical, achievable, and cost effective.

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<sup>1</sup> CAP-CP is a standardized format for packaging all elements of an emergency alert message so that it can be recognized and processed by LMD equipment.

39. Broadcaster LMDs will be mostly focused on the changes, upgrades and/or replacements necessary for their in-studio emergency alerting equipment and character generators. This is not a one-size-fits-all solution. There can be major differences, for both radio and television, of how emergency alerting equipment is incorporated into their studio systems. There can be vast differences between group operators with multiple stations and centralized master controls versus a stand-alone station. There are also vast differences in the age of station infrastructure and where they are on the equipment replacement cycle. These factors will need to be considered while working with equipment manufacturers to determine the new equipment requirements and costs.
40. Without a clear understanding of the potential new NPAS objectives, it is impossible to predict how much time is needed for each stage of the redesign. Manufacturers cannot predict the development time, as well as the time required for the manufacturing and testing of a new product until a detailed set of specification is provided. Similarly, broadcasters won't know how much time is needed to purchase, install and test new equipment until more detail is available.
- c) If applicable, provide details of any barriers or obstacles of the existing system that prevent the inclusion of the above-mentioned languages.**
41. In addition to the practical difficulties of adding languages to the NPAS and to the in-station emergency alert equipment described above, the Commission must keep in mind that radio and television stations are under extreme financial pressure due to years of declining revenue and profitability. Upgrades will require additional expenditures at a time when most stations are being forced to make significant cuts. Stations also have very limited engineering resources to design, purchase and install the required upgrades.
42. A third obstacle is that it may be challenging to convince international equipment manufacturers to prioritize the development time and cost for such a highly targeted niche product that will only be of use to Canadian broadcasters.
43. Should the government decide to move ahead with adding languages to the NPAS, it will be important to consider whether funding support could be provided to broadcasters to cover the cost of the upgrades and equipment replacements that would be needed.
- d) Please provide all answers within the context of, but not limited to, the following components/elements of the NPAS, as they apply to your role within the system (e.g. LMD, NAAD operator, EMO/issuer, encoder/decoder box vendor):**
- i) The NAAD interface used by alerts issuers**
  - ii) The NAAD system itself, including its text-to-speech (TTS) functionality**
  - iii) The broadcast distribution chain, including encoder/decoder boxes**
  - iv) The wireless public alerting (WPA) distribution chain, including networks and mobile handsets**
  - v) The character sets supported within these components (i.e. wireless networks, customer handsets, encoder/decoder boxes, the NAAD)**
  - vi) Encoders/decoders**

44. As described above, upstream changes will be necessary to the NAAD interface used by alerts issuers and the NAAD system itself, including its text-to-speech (TTS) functionality.
45. The inclusion of a fully functioning text-to-speech (TTS) system to support all desired languages is crucial to delivering alerts in a fast and automated manner. Availability of audio is essential on radio and television stations for emergency alerts to be meaningful and useful to listeners and viewers. As noted previously, radio is a sound only medium.
46. Radio and television stations anticipate that substantial upgrades or replacement of in-studio equipment will also be required, for which full external funding may be needed.

**2. Intervenors to the record have indicated that the Commission could direct industry committees to examine and report on the requirements to implement alerting in different languages. Moreover, other intervenors highlighted the need for a forum to address NPAS accessibility. In light of this:**

- a) **Identify whether an existing industry group or governance structure, such as the CRTC Interconnection Steering Committee (“CISC”) working group, SOREM, the Public Alerting Working Group (PAWG), or the NAAD System Governance Council, is best placed to address multilingual alerting and accessibility issues, as it pertains to NPAS.**
- b) **If not, provide your views on whether the CRTC should establish such a forum or working group to examine multilingual alerting and accessibility within the NPAS. If so, include the following in your answer:**
  - i) **The appropriate membership**
  - ii) **The scope of work, including how recommendations would be documented and reported to the Commission for effective follow-up**

47. As noted in the CAB answer to question 1b, the desired features and functionality of multilingual emergency alerts need to be defined more precisely before detailed design work can be commenced.
48. Once the overall objectives have been determined, then the Alerting Technical Working Group (ATWG), which reports to the Public Alerting Working Group, may be the best forum to design the needed changes. It is important to have input and collaboration with all affected parties to ensure practical and workable solutions. The ATWG has provided such a forum with participation from federal agencies, the provinces and territories, the NAADS operator (Pelmorex), equipment manufacturers, mobile operators, and radio and television broadcasters.

**3. Some intervenors have highlighted that the NPAS could support ASL/LSQ alerting templates on the AlertReady website with the objective of enhancing accessibility for Deaf and hard-of-hearing individuals.**

- a) **Identify the development required to implement this initiative**

49. To publish ASL/LSQ templates for different emergency alert message types on the Alert Ready web site, a plan would be needed to determine how the public would be directed to the appropriate ASL alert message. Possibly, this could be done by including a URL in the alerts sent by existing mobile and broadcast LMDs.

50. Attention would have to be given to the impact on message length of the alert text and audio messages.

51. Careful design would be needed to ensure that the general public, not looking for ASL/LSQ assistance, were not inadvertently directed to those messages.

**b) What group and alerting partners/stakeholders within the existing NPAS structure are most appropriately positioned to accomplish this task**

52. We note that the Government of Canada committed additional funding to the NPAS in Budget 2025 and that Public Safety Canada is conducting consultations on a new service delivery model for the alerting system that ensures a sustainable and adaptable approach for public alerting in Canada. We believe that may be the best forum to explore ways to improve accessibility, lead (and funded) by Public Safety Canada.

**c) If no appropriate forum currently exists, indicate whether the CRTC should establish such a forum or working group to examine to support the development of a repository of ASL/LSQ alerting templates. If so, include the following in your answer:**

**i) The appropriate membership**

**ii) The scope of work, including proposed timelines and key milestones for such a working group**

53. Once the objectives are clearly defined, the ATWG may be the appropriate forum to design the changes by collaborating with all affected parties and consulting with the accessibility community.

54. We thank you for the opportunity to provide responses to this request for information. All of which is respectfully submitted.

Yours sincerely,

*[Original signed by]*

Kevin Desjardins

President | Canadian Association of Broadcasters