



# **REPORT ON THE USE OF ASSISTIVE VOTING DEVICE FOR PERSONS WITH DISABILITIES**

**Final Report**

The Honourable Joan Fraser  
*Chair*

The Honourable John D. Wallace  
*Deputy Chair*

**Standing Senate Committee on Legal  
and Constitutional Affairs**

**October 2010**

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## ORDER OF REFERENCE

Extract from the *Journals of the Senate*, Tuesday, September 28, 2010:

The Honourable Senator Fraser moved, seconded by the Honourable Senator Tardif:

That pursuant to section 18.1 of the *Canada Elections Act* (S.C. 2000, c. 9), the Standing Senate Committee on Legal and Constitutional Affairs be authorized to examine and report on the use of electronic assistive voting devices for persons with disabilities; and

That the committee report to the Senate no later than October 28, 2010.

The question being put on the motion, it was adopted.

Gary W. O'Brien  
*Clerk of the Senate*

## MEMBERSHIP

### THE STANDING SENATE COMMITTEE ON LEGAL AND CONSTITUTIONAL AFFAIRS

#### 40<sup>TH</sup> PARLIAMENT, 3<sup>RD</sup> SESSION

The Honourable Joan Fraser  
*Chair*

The Honourable John D. Wallace  
*Deputy Chair*

and

The Honourable Senators:

W. David Angus  
George Baker, P.C.  
Pierre-Hugues Boisvenu  
Claude Carignan  
Sharon Carstairs, P.C.  
\*James S. Cowan (or Claudette Tardif)  
Serge Joyal, P.C.  
Daniel Lang  
\*Marjory LeBreton, P.C. (or Gerald J. Comeau)  
Jean-Claude Rivest  
Robert William Runciman  
Charlie Watt  
\*Ex Officio Members

*Other Senators who have participated from time to time on this study:*  
The Honourable James S. Cowan, Pierre De Bané, P.C., and Donald Neil Plett

The committee would like to thank the following staff for their work  
in the preparation of this report:

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*From the Committees Directorate:*  
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*From the office of the Chair of the Committee:*  
Céline Éthier, Policy Advisor

*From the office of the Deputy Chair of the Committee:*  
Kevin Jiang, Policy Advisor





## **INTRODUCTION**

On 28 September 2010, the Standing Senate Committee on Legal and Constitutional Affairs received an Order of Reference from the Senate that “the Committee be authorized to examine and report on the use of electronic assistive voting devices for persons with disabilities” in accordance with section 18.1 of the *Canada Elections Act* (Act)<sup>1</sup> and that the committee report to the Senate no later than 28 October 2010.

Section 18.1 of the Act provides that the Chief Electoral Officer (CEO) may carry out studies on voting, including studies of alternative voting means, and may “devise and test an electronic voting process for future use in an election or by-election.” The provision, however, requires that the CEO obtain prior approval for the use of an electronic voting process for an official vote from those committees in the Senate and House of Commons that normally consider electoral matters.

## **THE CHIEF ELECTORAL OFFICER’S WRITTEN PROPOSAL REGARDING THE TEST OF A NEW ASSISTIVE VOTING DEVICE**

By letter dated 12 July 2010 to the Chair of the Committee,<sup>2</sup> the CEO indicated that he would be seeking formal approval from the committee to test an assistive voting device to help electors with disabilities during the by-election that must be called in the electoral district of Winnipeg North no later than 27 October 2010, or alternatively, in the electoral district of Winnipeg North during a general election, should a general election supersede the by-election.

In a follow-up letter dated 21 September 2010, also addressed to the chair,<sup>3</sup> the CEO outlined the need for this particular assistive voting device and gave an overview of how the device would function in practice. In this letter, he explained that the initiative to test this new voting device responds to “requests made by electors with visual or mobility impairments” and that the device

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<sup>1</sup> S.C. 2000, c. 9.

<sup>2</sup> A copy of the 12 July 2010 letter of Marc Mayrand, Chief Electoral Officer, to the Honourable Joan Fraser, Chair of the Standing Senate Committee on Legal and Constitutional Affairs, has been attached to this report as Appendix A.

<sup>3</sup> A copy of the 21 September 2010 letter of Marc Mayrand, Chief Electoral Officer, to the Honourable Joan Fraser, Chair of the Standing Senate Committee on Legal and Constitutional Affairs, has been attached to this report as Appendix B.

being contemplated for testing “would allow these electors to vote with dignity and autonomy, in a manner that protects the secrecy of the vote.”<sup>4</sup> For the purposes of testing the efficacy of the device, the CEO indicated that he was proposing to make the device available to voters with a visual or other impairment who vote at the office of the returning officer or at an advance poll. The device might also be made available at other sites, depending upon the results of a consultation with community organizations who represent the targeted group of electors.

The CEO’s 21 September 2010 letter further advised that the anticipated cost of technology in relation to the pilot project would be in the range of \$21,000 to \$25,000 depending upon the number of devices to be made available.<sup>5</sup> The pilot project will be evaluated following the by-election and the results will be communicated to the committee. The CEO also indicated that he will be carrying out a cost-benefit analysis of using the voting devices at a general election. Should the analysis support using this device during a general election, the CEO would then present his recommendations to the committee on the changes to the *Canada Elections Act* that would be required in order to implement this new voting process on a permanent basis.<sup>6</sup>

As is explained in an addendum to the CEO’s letter, the device essentially allows electors with visual impairments and those who are illiterate to mark a ballot by following the step-by-step voice instructions given by the device using headphones. The elector may also use a feature of the device to magnify the voting instructions as well as the names of the candidates. For those with reduced mobility, different “interfaces” are provided using levers or “sip and puff” technology, the latter of which enables the voter to puff out air to scroll through the candidate choices and sip air to indicate a choice.

The process of voting with the device is designed to adhere to the voting process set out in subsections 150(2) and 151(1) of the *Canada Elections Act*. Election officials would assist the voter in unfolding the ballot in order to insert it into the device. To respect the secrecy of the vote, a process has been prescribed whereby election officials could assist the voter without being able to see the marked ballot. The election official would first unfold a blank ballot and insert it into the device. The voter would then indicate his or her choice. Next, the election

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<sup>4</sup> Ibid. at p. 1.

<sup>5</sup> Ibid. at p. 2.

official would remove the ballot without being able to see the voter's choice, as the printer would eject the marked ballot beneath an opaque privacy screen, which would allow the official to fold it without viewing it. After folding the ballot, the official would then place it into the ballot box in accordance with the procedure prescribed in the *Canada Elections Act*.

## **WHAT THE COMMITTEE HEARD**

On 29 September 2010, the CEO and other officials from Elections Canada appeared before the committee to explain the CEO's proposal to test the electronic voting device. Representatives from Dominion Voting Systems, the Canadian company that designed the device, were also present to give a demonstration of how the device operates. In his appearance before the committee, the CEO noted that there are over 2.9 million Canadians with reduced mobility and nearly 800,000 Canadians with a visual impairment, according to 2009 data obtained from Statistics Canada. He also indicated that an increasing number of voters with visual or other impairments are insisting on exercising their right to vote autonomously while preserving the secrecy of their ballot, something that the current legislation does not allow them to do.

The CEO emphasized that similar electronic voting processes have already been used in provincial elections in New Brunswick, notably during the province's most recent general election held on 27 September 2010, provincial by-elections in Ontario and in some municipal elections. In his view, testing the device in a federal election is essential as a means of demonstrating that the device can be useful and would be compatible with the voting processes set out in the *Canada Elections Act*. He confirmed that prior to the fall of 2011, Elections Canada would conduct a cost-benefit analysis to evaluate the feasibility of broader use of the voting device during a general election.

Should the pilot project in the Winnipeg North by-election be successful and should the cost-benefit analysis support expanding the use of the device in a general election, the CEO indicated that he would seek amendments to the *Canada Elections Act* for permanent implementation of the process.

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<sup>6</sup> Ibid.

The CEO was asked about what major challenges Elections Canada would face, both in terms of implementing the new assistive voting device in the upcoming by-election in Winnipeg North, or, should the use of the technology prove successful in the by-election, in a future general election. The CEO advised the committee that the main challenge would not lie in the use of the technology itself by electors, since experiences in other jurisdictions that have used this, or another similar device during an election, have demonstrated that the technology works, but rather would lie in:

- meeting the calendar pressures built into the *Canada Elections Act* (in other words, the performance of certain activities by Elections Canada officials within applicable time frames prescribed by the Act);<sup>7</sup> and
- reaching out to electors who might wish to avail themselves of the device, in order to ensure that they understand how to use it, and where and when the device would be available for use.

With respect to the second challenge of reaching out to voters who might want to use this new technology to vote, the CEO advised the committee that in the upcoming Winnipeg North by-election, Elections Canada plans to place assistive voting devices at six advance polling stations, the office of the returning officer and at one long-term care facility, which would be designated as a polling station. He also informed the committee that Elections Canada was currently exploring the possibility of using the device at other locations. He further indicated that, if he received approval from both this committee and from the House of Commons Standing Committee on Procedure and House Affairs<sup>8</sup> to proceed with the testing of this device in the Winnipeg North by-election, Elections Canada would be consulting with various groups

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<sup>7</sup> This is, in part, why amendments to the *Canada Elections Act* would be required before the assistive voting device could be used in a general election.

<sup>8</sup> The House of Commons Standing Committee on Procedure and House Affairs heard testimony from the Chief Electoral Officer and other Elections Canada officials on the use of this device during its 7 October 2010 committee meeting, and on 18 October 2010, tabled a report in the House of Commons recommending that the Chief Electoral Officer be authorized to proceed with the implementation of a pilot project to test this device during the upcoming by-election in the electoral district of Winnipeg North. A copy of this report is available on-line at: <http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=4678204&Language=E&Mode=1&Parl=40&Ses=3>

representing persons with disabilities in the Winnipeg area, to see whether there are other locations where the electors who might use this new voting system could be reached more effectively. He suggested that one possibility, in terms of informing the public that the device was available and demonstrating its use, would be to set up assistive voting devices in local shopping centres and allowing members of the public to try them out, as the City of Ottawa has been doing with a similar machine in anticipation of that city's upcoming 25 October 2010 municipal election.

When asked about the overall costs involved in using the assistive voting device in Winnipeg North, the CEO advised that the costs of the communications strategy, which would make the targeted group of voters aware of the existence of this new voting process prior to the by-election, were not included in the estimate of \$21,000 to \$25,000 for the pilot project outlined in the CEO's 21 September 2010 letter to the chair of this committee. The said estimate only included the costs of using the technology itself. Also excluded from this estimate were the costs of evaluating the success of the pilot project.

#### **THE COMMITTEE'S DECISION REGARDING THE PROPOSED TEST**

**After a careful consideration of the Chief Electoral Officer's proposal, this committee expresses its approval of his request to use the assistive voting device described above in the electoral district of Winnipeg North wherein a by-election must be called by 27 October 2010, or alternatively, in the electoral district of Winnipeg North during a general election, should a general election supersede the by-election.**

The right of all citizens to participate in the affairs of their government, through voting, is one of the cornerstones of democracy, and the committee is in favour of assisting all Canadians in exercising their franchise as equitably as possible, and with all possible secrecy.

#### **THE COMMITTEE'S CONCERNS**

Having said this, the committee wishes to express certain concerns with the proposal submitted by the CEO, some of which have to do with the technology itself, and others which have to do with the lack of detail provided in the proposal about the use of similar technology in other jurisdictions, and the metrics and mechanisms Elections Canada plans to use to evaluate the

success of the pilot project. The committee expects to see these concerns addressed, both in Elections Canada's evaluation of the pilot project, which the CEO has promised to furnish to this committee at a later date, as well as in any future proposal by Elections Canada to use this technology more widely in a future general election.

#### **A. Concerns Regarding the Technology Itself**

After having observed a demonstration of the use of this device, the committee was troubled by the fact that the device enables voters who use the audio program associated with the assistive voting device, to mark their ballots without the device having read out the entire list of candidates who are running in a particular riding. While it is true that in many instances, voters have already made up their minds as to who they will vote for before they arrive at the polling station, those who are able to view the ballot in its entirety are at least presented with the names of all the candidates on the ballot before they cast their votes. The committee believes that a similar procedure should be instituted for those who use the audio program associated with the device.

#### **RECOMMENDATION 1**

**That Elections Canada ensure that the programming of the assistive voting device is altered prior to the Winnipeg North by-election to ensure that those who use the audio program are required to hear the names of all candidates on the ballot before being allowed to select their candidate.**

Currently, voters with a visual impairment are allowed to bring a relative, friend or elections officer behind the privacy screen with them when they vote, to assist them in marking their ballot.<sup>9</sup> The committee was told that the new assistive voting device to be tested in the Winnipeg North by-election is designed to allow visually or other physically impaired voters to cast their ballots without assistance. The ballot marked by the device in accordance with the elector's wishes is printed out beneath an opaque privacy screen before being handled by an Elections

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<sup>9</sup> *Presentation by the Chief Electoral Officer of Canada to the Standing Committee on Legal and Constitutional Affairs Concerning Testing an Electronic Assistive Voting Device*, 29 September 2010, p. 4. Also see sections 154 and 155 of the *Canada Elections Act*.

Canada official. Without intending to impugn the integrity of these officials in any way, the committee is concerned that voters with a visual impairment will still have no assurances that the elections official assisting them did not look at the ballot or alter it in some fashion before folding and inserting it in the ballot box. As the purpose of this new technology is to allow electors with disabilities “to vote with dignity and autonomy, in a manner that protects the secrecy of the vote,”<sup>10</sup> the committee believes that Elections Canada should continue its policy of allowing visually impaired voters to bring a friend, family member or other observer up to the device with them, to watch the elections official fold the ballot, if the voter in question chooses to do so. This should assist visually impaired voters to feel confident that voting secrecy had been preserved in accordance with the requirements of the Act.

## **RECOMMENDATION 2**

**That when this assistive voting device is used by a visually impaired voter during the Winnipeg North by-election, Elections Canada continue its policy of allowing such voters to bring a friend, family member or other observer up to the device with them, to watch the elections official fold the marked ballot before placing it in the ballot box.**

Finally, after listening to the audio script employed by the assistive voting device during the demonstration, the committee is concerned that some of the vocabulary used in the device’s audio program may not be as simple or straightforward as it could be, particularly if the device is being used by individuals for the first time, or is being used by individuals who may have slight cognitive impairments. Such individuals might find this vocabulary to be intimidating, and be afraid to use the device as a result. Accordingly, the committee believes that Elections Canada should review the vocabulary used in the device’s audio program prior to the Winnipeg North by-election, and take steps to ensure that the vocabulary used is as simple and straightforward as possible.

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<sup>10</sup> Supra note 4.

### **RECOMMENDATION 3**

**That prior to the Winnipeg North by-election, Elections Canada review the vocabulary employed in the assistive voting device's audio program, and take steps to ensure that the vocabulary used in this program is as simple and straightforward as possible.**

#### **B. Other Concerns About This Proposal and Any Future Proposals**

The committee has, as indicated above, concerns about the assistive voting device, in and of itself, and the technology it uses. The committee is also concerned about the lack of detail provided in the CEO's proposal. However, neither his letters sent to the chair of this committee<sup>11</sup>, nor his presentation to the committee, provided any information regarding:

- whether any other devices or voting methods comparable to the one to be tested in the upcoming Winnipeg North by-election exist, a description of these devices or methods, and an evaluation of whether these devices or methods could meet the same objectives of voter independence as the device to be tested in Winnipeg North, but in a more efficient and cost effective manner;
- how well the assistive voting device the committee is currently evaluating, or other similar device, has performed in jurisdictions that have used it in the past, and the metrics used by those other jurisdictions to evaluate the device;
- the costs associated with the use of this device or other similar devices in elections held in other jurisdictions (such cost estimates would ideally include the total costs, as well as a breakdown of the costs of using the technology itself, communications and outreach, training and project evaluation);

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<sup>11</sup> A copy of Marc Mayrand's 12 July 2010 letter has been attached to this report as Appendix A. A copy of his 21 September 2010 letter has been attached to this report as Appendix B. A copy of his 19 October 2010 letter has been attached to this report as Appendix C.



- the number of individuals with disabilities who have used this device, or a similar device, in past municipal elections, provincial by-elections or provincial general elections;
- the details of the communications strategy Elections Canada intends to use to ensure that voters in affected communities are aware of the existence of this technology prior to the Winnipeg North by-election;
- an estimate of the total amount of money Elections Canada anticipates spending on its assistive voting device pilot project in Winnipeg North, including the estimated costs of the technology itself, the communications and outreach strategy, the training provided respecting the device's use, and the project evaluation;
- any research conducted or statistics that would allow the committee to understand whether there is a genuine need for this device (in other words, how many people in Canada have asked for an assistive voting device, how many electors with disabilities are not voting because they do not feel that they can do so properly, and whether or not using existing mechanisms designed to assist voters with disabilities are adequate);<sup>12</sup> and
- the estimated cost of the next general election and of using this device in the next general election, including the estimated costs of the technology itself, the communications and outreach strategy, the training provided respecting the machine's use and the project evaluation.

The committee recognizes that some of these details were likely unavailable to the CEO at the time he and his officials appeared before us. For instance, the CEO advised us that although this assistive voting device was used in New Brunswick's provincial general election on 27 September 2010, Elections New Brunswick only kept statistics on how many times the device was used, rather than on how many persons with disabilities used the device, and therefore, exact

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<sup>12</sup> With regard to this last point, the committee was advised by the CEO on 29 September 2010 that the *Canada Elections Act* already contains several provisions allowing for assistance to be provided to voters with disabilities, including: ensuring that there is a template at every polling station that persons who are visually impaired can use to mark their ballots; allowing a relative, friend or elections officer to mark the ballot for an elector with an impairment; and allowing voting by special ballot.

numbers for use of this device by persons with disabilities were not available for this jurisdiction. In addition, it is possible that a detailed breakdown of the anticipated costs of using the device in a general election would be difficult to provide at this point, given that this device has not yet been used in a federal by-election. Having said this, however, other details, which were not included in the CEO's proposal, should certainly have been available to the CEO and his officials at the time they appeared before us.

It is difficult for the committee to understand, for example, why details such as the exact cost of Elections Canada's proposed communications strategy in relation to the assistive voting device for the upcoming Winnipeg North by-election, or the total costs associated with the device's use in other jurisdictions, were not made available. In fact, the committee understands that Elections Ontario did studies on the use of similar devices in the St. Paul provincial by-election held on 17 September 2009<sup>13</sup> and in the Haliburton-Kawartha Lakes-Brock provincial by-election held on 9 March 2009,<sup>14</sup> which provided details of these costs, and that the results of these studies are publicly available. In addition, transcripts from the Ontario Legislature also provide relevant details. For example, according to Ontario Legislature Committee transcripts, in the Haliburton-Kawartha Lakes-Brock provincial by-election, 2,800 people used the device in the office of the returning officer, with nine individuals able to vote independently using this technology.<sup>15</sup> The committee is unclear why details such as this were not included in the CEO's presentation to this committee, and believes that details of this nature should be included in his follow-up report to the committee following the completion of Elections Canada's pilot project in Winnipeg North.

The committee is also of the view that Elections Canada should take steps to ensure, as much as possible, that the assistive voting device is reserved for use by those individuals who truly need to use it. The fact that there was a large discrepancy between the number of individuals who used

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<sup>13</sup> See Elections Ontario, *St. Paul's By-election Report*, 4 January 2010, available on-line at: <http://www.elections.on.ca/NR/rdonlyres/60DCACE4-7112-4837-A32D-E24D93C1C06/0/StPaulsByElectionReportEnglishApril2010.pdf>. The section of the report outlining the assessment of the accessible voting technology pilot project conducted in that by-election may be found on pp. 29 to 41.

<sup>14</sup> See Elections Ontario, *Haliburton-Kawartha Lakes-Brock By-election Report*, 1 June 2009, available on-line at: <http://www.elections.on.ca/NR/rdonlyres/362BF2B3-055F-41AD-9D55-E960F4F1AFE6/0/HKLBBByElectionReportENG.pdf>. The section of the report outlining the assessment of the accessible voting technology pilot project conducted in that by-election may be found on pp. 31 to 46.

<sup>15</sup> See the 29 March 2009 Committee transcript of Ontario's Select Committee on Elections at p. EL-72. This transcript is available on-line at: [http://www.ontla.on.ca/committee-proceedings/transcripts/files\\_pdf/24-MAR-2009\\_EL008.pdf](http://www.ontla.on.ca/committee-proceedings/transcripts/files_pdf/24-MAR-2009_EL008.pdf).

the assistive voting device in Ontario's Haliburton-Kawartha Lakes-Brock by-election (2,800) and the number of people who indicated that they were able to vote independently by using the device (nine), suggests that members of the general public who do not require assistance in voting, may be using the device for curiosity's sake, rather than out of genuine need. Such a discrepancy in numbers also makes it difficult to determine whether or not this device is actually assisting the group of voters it is designed to help. Accordingly, the committee urges Elections Canada to ensure that when the assistive voting device is used in the upcoming Winnipeg North by-election, it is placed in such a way so as to not draw the attention of the general public, and that its use is reserved, as much as possible, for those who truly need assistance to vote independently.

In addition, the committee was also disappointed to discover that the upcoming Winnipeg North by-election will represent the first test, at the federal level, of this device. The committee would have preferred to see Elections Canada conduct a pre-test of this device prior to their appearance on 29 September 2010, using a select group of individuals with disabilities assess the device and identify any potential problems associated with its use. Data from such a pre-test would definitely have assisted the committee in its efforts to evaluate the pilot project the CEO is proposing to conduct.

Finally, the committee was troubled by the fact that while Elections Canada was able to outline the three questions it would need to answer to determine whether its test of the assistive voting device in the Winnipeg North by-election was successful; namely, whether the technology works, how it is being used and the extent to which it is being used by electors; and whether or not electors were satisfied with using the device, no details were provided as to what criteria Elections Canada would be using to answer these three questions.

In order to ensure that this committee is adequately informed as to the results of this pilot project, whether Elections Canada considers the pilot project to have been a success, and how the success of the project was measured, the committee therefore recommends that the CEO report back to the committee on the results of its assistive voting device pilot project no later than three months after the Winnipeg North by-election is held, or alternatively, no later than three months after the device has been tested in the electoral district of Winnipeg North during a general election,

should a general election supersede the by-election. The CEO's report should contain many of the details we have noted above as having been missing from the CEO's presentation to the committee on 29 September 2010.

#### **RECOMMENDATION 4**

**That the Chief Electoral Officer report back to the Standing Senate Committee on Legal and Constitutional Affairs on the results of its assistive voting device pilot project no later than three months after the Winnipeg North by-election is held, or alternatively, no later than three months after the device has been tested in the electoral district of Winnipeg North in a general election, should a general election supersede the by-election. This report should contain, at a minimum, the following information:**

- **whether any other devices or voting methods comparable to the one tested in the Winnipeg North by-election, or in Winnipeg North during a general election exist; a description of these devices or methods, and an evaluation of whether these devices or methods could meet the same objectives of voter independence as the device tested in Winnipeg North, but in a more efficient and cost effective manner;**
- **how well the assistive voting device used in Winnipeg North or any other similar device have performed in jurisdictions that have used it in the past, and the metrics used by those other jurisdictions to evaluate the device;**
- **the costs associated with the use of this device or other similar devices in elections held in other jurisdictions (such cost estimates would ideally include the total costs, as well as a breakdown of the costs of using the technology itself, communications and outreach, training and project evaluation );**
- **the number of individuals with disabilities who have used this device, or a similar device, in past municipal elections, provincial by-elections or provincial general elections;**
- **the number of individuals with disabilities who used the assistive voting device in the Winnipeg North assistive voting device pilot project;**
- **the details of the communications strategy used by Elections Canada to ensure that voters in affected communities were aware of the existence of this technology prior to the Winnipeg North by-election, or prior to its use in Winnipeg North during a general election, should a general election supersede the by-election;**

- **whether or not Elections Canada believes the assistive voting device pilot project in Winnipeg North to have been a success, the metrics used to measure its success, and a cost benefit analysis of this pilot project, including a breakdown of the costs associated with the technology itself, the communications and outreach strategy, the training provided respecting the device's use, and the project evaluation;**
- **any research conducted or statistics that would allow the committee to understand whether there is a genuine need for this device (in other words, how many people in Canada have asked for an assistive voting device, how many electors with disabilities are not voting because they do not feel that they can do so properly, and whether or not using existing mechanisms designed to assist voters with disabilities are adequate);**
- **the estimated cost of the next general election;**
- **the estimated costs of using this assistive voting device in the next general election, including a breakdown of the estimated costs of using the technology itself, the communications and outreach plan, the training provided respecting the machine's use and the project evaluation (the costing exercise should also include the estimated costs of extending the use of this technology to both urban and rural ridings, as well as in isolated ridings); and**
- **the implications of using this technology over the next five years.**



**APPENDIX A – Letter from Chief Electoral Officer, dated July 12, 2010**



The Chief Electoral Officer • Le directeur général des élections

Our file: 2010-012964

JUL 12 2010

The Honourable Joan Fraser, Senator  
Chair, Standing Committee on Legal  
and Constitutional Affairs  
The Senate  
Ottawa, Ontario  
K1A 0A4

Dear Senator Fraser:

This is further to our recent discussion regarding the use of electronic assistive voting devices to help electors with disabilities, which my Office plans to test in a forthcoming by-election.

Section 18.1 of the *Canada Elections Act* authorizes the Chief Electoral Officer to conduct studies respecting alternative voting means, including electronic voting, and allows the use of such means in a general election or by-election with "the prior approval of the committees of the Senate and of the House of Commons that normally consider electoral matters".

Given that there is a vacancy in the electoral district of Winnipeg North and that a by-election must be called no later than October 27, 2010, we may have an opportunity to conduct the pilot project this fall, depending on when the by-election will be held.

In this regard, I will contact the Committee as early as possible in the fall to formally seek approval for this initiative. I would be pleased to offer a demonstration of the device to the Committee at that time. I have enclosed, for your reference, a document explaining our proposed pilot project.

Yours truly,

A handwritten signature in black ink, appearing to read "Marc Mayrand".

Marc Mayrand  
Chief Electoral Officer

Encl.

c.c.: Ms. Shaila Anwar, Clerk of the Committee





**APPENDIX B – Letter from Chief Electoral Officer, dated September 21, 2010**



The Chief Electoral Officer • Le directeur général des élections

Our file: 2010-013492

SEP 21 2010

The Honourable Joan Fraser, Senator  
Chair, Standing Committee on Legal and  
Constitutional Affairs  
The Senate of Canada  
Ottawa, Ontario  
K1A 0A4

Dear Senator Fraser:

This is further to my letter of last July 12, in which I advised you that I would be approaching the Committee this fall to seek its formal approval to test an electronic assistive voting device, in accordance with section 18.1 of the *Canada Elections Act*. I also offered to demonstrate the operation of the device, which I now propose to do when I appear before the Committee this coming September 29.

This initiative will respond to requests made by electors with a visual impairment or with reduced mobility; it will allow them to vote with dignity and autonomy, in a manner that protects the secret of the vote.

We retained the services of Dominion Voting Systems, through competitive bidding, to develop the electronic assistive voting device. You will find appended hereto an outline of the chosen process, which has already been used by Dominion Voting Systems for elections in other Canadian jurisdictions, including recent provincial by-elections in Ontario, and elections in New-Brunswick and in several municipalities.

It is important to note that the introduction of this electronic assistive voting device is not intended to eliminate existing assistive voting mechanisms for persons with a visual impairment. The electronic assistive voting device will be an additional means of increasing autonomy and will not replace existing mechanisms provided for under the Act.

A by-election will be called in the electoral district of Winnipeg North, by October 27, 2010, at the latest. My office is ready to test the electronic assistive voting device during this by-election.

In the context of this by-election, an electronic assistive voting device will be made available to electors with a visual impairment or other type of impairment, who vote at the office of the returning officer, or at an advance poll. In addition, depending on the results of consultations that will be held with community groups representing targeted electors, an electronic assistive voting device may be made available at other voting sites where a significant number of electors with a particular impairment will be voting.

In order to increase elector awareness and promote use of the device, implementation and communication strategies specific to the target population will be developed in co-operation with the organizations representing those groups of electors. In addition, returning officers will invite candidates or their representatives to attend a demonstration of the device at the meetings with candidates following the confirmation of nominations.

The costs related to the technology needed for this pilot project in the electoral district of Winnipeg North fall between \$21,000 and \$25,000, depending on the number of devices made available.

The project will be the subject of an evaluation, and the results will be conveyed to you. Moreover, a comprehensive costs-benefits analysis of deploying this process at the national level during future general elections will be carried out. In the event that this evaluation and this costs-benefits analysis both support the introduction of this new manner of voting for electors with a disability, I would then present recommendations on changes to the *Canada Elections Act* that are required to allow for the permanent implementation of this voting process.

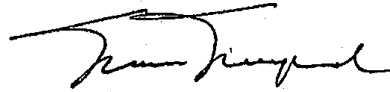
In light of the above, I will be seeking your approval, by way of a motion adopted by the Committee, to:

- proceed with the implementation of a pilot project to test an electronic assistive voting device during the upcoming by-election in the electoral district of Winnipeg North;
- in the context of this by-election, make available an electronic assistive voting device for the vote taking place at the office of the returning officer and at advance polls, as well as in any other voting place that, following consultations with the community, may have been identified as serving a significant number of targeted electors;
- allow electors to exercise their right to vote with the assistance of an electronic voting device, in a manner consistent with the process described in the appended text;

— in the event that this by-election is superceded by a general election, allow that the device be tested during the election that would be held in this electoral district in the context of that general election.

It will be my pleasure to meet with you on September 29, as arranged, to obtain your prior approval for the use of this device in one or more forthcoming by-elections.

Yours truly,



Marc Mayrand  
Chief Electoral Officer

Encl.

c.c.: Ms. Shaila Anwar, Committee Clerk

## APPENDIX

### ELECTRONIC ASSISTIVE VOTING DEVICE FOR WHICH APPROVAL IS SOUGHT

- Electors wishing to make use of the device may select the type of assistance they desire.
  - Electors with a visual impairment or who are illiterate may mark their ballot by following step-by-step voice instructions delivered via headphones. The device also makes it possible for electors to view and magnify the instructions and the names of the candidates on a screen.
  - Electors with reduced mobility can use different interfaces, one of which operates with levers, or can use “sip and puff” technology, where electors puff out air to scroll through choices and sip air to indicate their choice.
- Once the elector has selected the type of assistance, the ballot can be inserted into the device by the election officer, enabling the elector to independently exercise his or her right to vote while maintaining the secrecy of the vote. Subsection 150(2) of the *Act* prescribes that the deputy returning officer will fold the ballot before giving it to the elector. With the device in question, a pre-folded ballot can easily be inserted into the printer provided that the ballot is unfolded before insertion. An election officer will therefore unfold the ballot and insert it into the printer. The ballot used here is identical to the ballot used for regular voting. It should also be noted that additional election officers could be called upon to facilitate use of this alternative voting method.
- Subsection 151(1) of the *Act* sets out the process to be followed by an elector in order to vote. Under that process, after receiving a ballot, the elector proceeds to the voting compartment, marks the ballot, folds the ballot as instructed by the deputy returning officer and returns it to the deputy returning officer. Electors using the assistive device to vote will, for their part, receive the ballot from the deputy returning officer and will then proceed to a separate voting compartment in which the device will have been installed. A designated election officer will place the blank ballot in the device. Once the elector has marked the ballot with the help of the device, the designated officer will remove the marked ballot from the printer and refold it without being able to see the choice made by the elector. Taking possession of the refolded ballot, the elector will return it to the deputy returning officer, who in turn will deposit it in the ballot box. Although this process is somewhat different from that set out in the *Act*, the secrecy of the vote will be maintained since, when it comes out of the printer, the marked ballot will slide into a sleeve and will be refolded in such a way as not to reveal the elector’s voting choice.
- In each case, the ballot that has been marked by the device according to the elector’s choice will ultimately be deposited in either the ballot box for the advance polling district or for the elector’s polling division, unless the voting takes place at the office of the returning officer. In the latter case, the ballot will be deposited in that office’s ballot box. It is worth noting that the device used to mark the ballot is able to randomly generate, in the circle selected by the elector, a mark that resembles one an elector not using such a device would make by hand. It is therefore impossible to tell whether the ballot was marked by hand or with the help of the assistive voting device, again protecting the secrecy of the vote.

**APPENDIX C – Letter from Chief Electoral Officer, dated October 19, 2010**



The Chief Electoral Officer • Le directeur général des élections

Our file: 2010-013652

OCT 19 2010

The Honourable Joan Fraser, Senator  
Chair, Standing Committee on Legal  
and Constitutional Affairs  
The Senate  
Ottawa, Ontario  
K1A 0A4

Dear Senator Fraser:

This letter is further to my appearance of September 29, 2010, before the Standing Committee on Legal and Constitutional Affairs regarding the use of electronic assistive voting devices to help electors with disabilities.

As requested by Senator Wallace during my appearance, you will find below information regarding the use of similar devices at provincial and municipal levels in Canada. The US firm Election Systems & Software (ES&S) and the Canadian firm TM Technologies have supplied assistive voting devices for use in electoral events as follows:

- **ES&S:** Devices used in Mississauga, Ontario (2003 and 2006); Saint John, New Brunswick (2004); Winnipeg, Manitoba (2006); London, Ontario (2009); and Saskatoon, Saskatchewan (2009)
- **TM Technologies:** Devices used in 4 municipalities in Quebec (2003); 16 municipalities in Quebec (2005); Sainte-Anne-des-Monts, Quebec (2006); 6 municipalities in Alberta (2007); and Wetaskiwin, Alberta (2008)

As I indicated when I appeared, Elections Canada chose Dominion Voting Systems for the pilot project through a competitive process. Dominion has been involved in provincial and municipal elections throughout the country, including all 102 municipalities in New Brunswick, more than 70 municipalities in Ontario, and a smaller number of municipalities in Alberta, British Columbia, Manitoba, Newfoundland and Labrador and Quebec.

I trust that this information will be of assistance to you. I invite you to contact me if you have any further questions.

Yours truly,

Marc Mayrand  
Chief Electoral Officer

c.c.: Ms. Shaila Anwar, Clerk of the Committee

## APPENDIX D - WITNESS LIST

ORGANIZATION	NAME, TITLE	DATE OF APPEARANCE	COMMITTEE ISSUE NO.
<b>40<sup>th</sup> Parliament 3<sup>rd</sup> Session</b>			
Elections Canada	Mayrand, Marc (Chief Electoral Officer)	2010-09-29	12
Elections Canada	Perrault, Stéphane	2010-09-29	12
Elections Canada	Roussel, Michel	2010-09-29	12
Elections Canada	Morin, Lyne	2010-09-29	12
Dominion Voting Systems	McKinstry, John	2010-09-29	12
Dominion Voting Systems	Papoulias, Steve	2010-09-29	12