



## CITY OF HAMILTON

### CORPORATE SERVICES City Clerks

<b>TO:</b> Chair and Members Audit Finance and Administration Committee	<b>WARD(S) AFFECTED:</b> CITY WIDE
<b>COMMITTEE DATE:</b> November 12, 2012	
<b>SUBJECT/REPORT NO:</b> Alternative Voting Solutions for Municipal Elections (FCS12046) (City Wide)	
<b>SUBMITTED BY:</b> Roberto Rossini General Manager Finance & Corporate Services Department	<b>PREPARED BY:</b> Tony Fallis x2753
<b>SIGNATURE:</b>	

### RECOMMENDATION

- (a) That staff be directed to issue a Request for Proposals for the lease of vote scanners, which is to include all hardware, software and technical support from the vendor, at a cost not to exceed \$350,000 for the 2014 Municipal Election;
- (b) That \$100,000 from the Capitol Project Fund (3521251201) be transferred to the Election Expense Reserve (112206) for 2012;
- (c) That a budget increase of \$150,000 to the Election Expense Reserve (112206) be referred to the 2013 Budget deliberations for consideration.

### EXECUTIVE SUMMARY

The City currently owns 160 OS AccuVote Scanners and they have been used in 4 full Municipal Election since 2000 plus a 2004 By-Election and 2 California primaries.

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These scanners are now past their useful life and the current tabulator models available today offer updated features that are more user friendly, while requiring less set up and take down time.

The options available are to lease or to purchase these units. The approximate cost of purchasing would be \$1,000,000 and would include software and technical support. This does not include maintenance fees for each election, which in the past has been \$15,000.00 per year. The lifespan of tabulators purchased would be approximately 3 full Municipal Elections.

The approximate cost of leasing would be \$350,000 and would include software and technical support per election. It may be possible to secure a multi election lease which would lower the cost.

Municipal Elections are now held every 4 years and have a requirement to be accessible to all voters. Companies involved in the production of voting tabulators continue to move forward with technology that shortly will see a compact unit that is accessible for all electors.

Although staff recommends continuing with the use of tabulators as the preferred method of voting offered to electors, Council could choose to approve an alternative method. Other methods include; internet, vote by mail and telephone. These methods have been analyzed under the Alternatives for Consideration section of this report.

Currently the base cost for running a general election is 1.1 million dollars.

**Alternatives for Consideration – see Page 5**

**FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)**

**Financial:** Leasing 220 tabulators and 20 accessible units would cost approximately \$350,000.

To cover the cost of leasing, \$100,000 has been placed in the Election Reserve for 2012, and an additional \$150,000, is recommended to be funded in the Election Reserve from 2013 going forward.

	<b>2014</b>	<b>2018</b>	<b>2022</b>	<b>Total</b>
<b>Purchase Cost</b>	\$1,000,000	\$0	\$0	\$1,000,000
<b>Depreciation</b>	\$333,333	\$333,333	\$333,333	\$0
<b>Lease Cost</b>	\$350,000	*\$329,764	*\$310,699	\$990,463

\* Present value to 2014 lease year using CPI – June 2012 of 1.5%

Note: Purchase excludes maintenance fees.

**HISTORICAL BACKGROUND** (Chronology of events)

From 1978 until 1995 the City of Hamilton used the Votamatic Punch Card Voting System. Although durable it was not user friendly and an elector could not verify their ballot after having it removed from the vote recorder.

In the 1997 Municipal Election Accuvote OS Scanners were leased from the City of Vancouver for use by the City of Hamilton.

In 1998 the City of Hamilton awarded Global Election Systems a contract to provide the AccuVote OS Scanner in the 2000 Municipal Election.

These scanners were used in the 2000, 2003, 2006, and 2010 full municipal elections, the 2004 by-election and 2 separate primaries in the State of California.

These scanners provided up to date technology which allowed precise reading of an elector's ballot. They were able to process a large number of ballots and provide immediate results at the end of the voting day.

**POLICY IMPLICATIONS**

Purchasing Policy requires an R.F.P. process.

**RELEVANT CONSULTATION**

Consultation for this report was received from Information Services

**ANALYSIS / RATIONALE FOR RECOMMENDATION**

(include Performance Measurement/Benchmarking Data, if applicable)

As indicated in the Historical Background the Accuvote OS Scanners have been used in Hamilton since 2000.

For the 2010 Municipal Election extensive preventive maintenance was provided by Election Systems and Software (ES&S) on the 160 tabulators that we currently own and the 33 that we leased. This maintenance included full diagnostic testing and battery replacement in all units. Although successfully used in the 2010 Municipal Elections signs of aging became evident throughout the testing stages and on Election Day.

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Staff is recommending the leasing of equipment for the 2014 Election expecting advancements in technology and the ability to be A.O.D.A. compliant which will further enhance the electoral experience for all voters in the near future.

The advancement in the field of voting technology has continued to evolve over the past 12 years. Within the next 2 elections we expect a tabulator will be required at all polling locations to provide accessible opportunities to vote. Tabulators purchased at this time may be obsolete by the 2018 election.

The approximate cost for leasing would be \$350,000.00 and would include tabulators, software and training programs for our Information Services staff.

The approximate cost for purchasing would be \$1,000,000.00 and would include tabulators, software and training programs for our Information Services staff. This would not include any future maintenance cost required for the tabulators.

**ALTERNATIVES FOR CONSIDERATION**

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

The Municipal Elections Act allows a municipality to pass by-laws that allow the use of vote counting equipment such as voting machines, voting recorders or optical scanning vote tabulators. Additionally it allows for alternative voting methods such as vote by mail or telephone that does not require a voter to visit a voting place in order to vote.

Following is a review of the alternative methods available:

**Voting Tabulators (Currently used by the City of Hamilton)**

Voting tabulators have been in use since 1975 and continue to be the preferred method of voting in larger municipalities in Ontario.

An elector produces identifying documentation at the poll, receive and mark a ballot, and then insert into a voting tabulator. The voting tabulator can alert the voter if the ballot inserted may be spoiled. This provides an opportunity for the elector to change their ballot or have the voting tabulator receive the ballot as the elector has voted.

At the conclusion of voting the memory card is taken from the voting tabulator and downloaded to a central location. The results are then posted on screens at City Hall and the Election web site. The voting tabulator process allows for expedited results and lessens the opportunity for human error when determining elector intent on a ballot.

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Companies that produce the current models of tabulators have indicated that a compact, accessible tabulator will be available in the near future. When considering the number of disabled electors in our city and the A.O.D.A. requirements staff believe it would be prudent to not purchase tabulators at this time, but rather look to leasing the units required.

<b>Pros for Leasing</b>	<b>Cons for Leasing</b>
<ul style="list-style-type: none"> <li>• Each election most technically advance tabulators would be available.</li> <li>• Eliminate yearly maintenance costs.</li> <li>• Company support services would be a part of the lease.</li> <li>• May be able to negotiate a multi election quote.</li> <li>• Paper audit trail of ballots.</li> <li>• Memory card audit trail.</li> <li>• Elector has ability to correct ballot.</li> <li>• Accuracy of the Voter's intent.</li> <li>• Secure ballot storage.</li> <li>• Expedited Results at the conclusion of voting.</li> </ul>	<ul style="list-style-type: none"> <li>• Tabulator hacking.</li> <li>• Training manuals would require rewriting each election.</li> <li>• I.S. software may need upgrades to remain compatible with tabulator software.</li> </ul>

<b>Pros for Purchasing</b>	<b>Cons for Purchasing</b>
<ul style="list-style-type: none"> <li>• Not required to go through the R.F.P. process each election.</li> <li>• Training process would remain the same.</li> <li>• Paper audit trail of ballots.</li> <li>• Memory card audit trail.</li> <li>• Elector has ability to correct ballot.</li> <li>• Accuracy of the Voter's intent.</li> <li>• Secure ballot storage.</li> <li>• Expedited Results at the conclusion of voting.</li> </ul>	<ul style="list-style-type: none"> <li>• We could be using obsolete tabulators for elections beyond 2014.</li> <li>• Yearly maintenance costs.</li> <li>• Contract support services required in an Election year.</li> <li>• Depreciation of the tabulators.</li> <li>• Requirements for accessible tabulators in all polls will be mandatory in future elections.</li> </ul>

## **Internet Voting**

Internet voting is the latest trend in voting in Ontario. In the 2010 Municipal Elections approximately 44 Ontario municipalities use internet voting for either advance polls or on Election Day.

Each elector on the Voters' List is mailed a voter information package. This package would include an identification number to be used for registration. At registration additional information may be required such as a security question.

Once an elector is registered, an additional PIN is mailed to the elector for further verification. The elector would then use the identification number, PIN and security question to access the online ballot from a computer.

The process does allow an elector to review their ballot before casting it. The electors vote is then stored in a secure database program, which does not allow the ballot and the elector who cast the ballot to be linked.

Experts are divided as to the use of internet voting. Those in opposition site the opportunity for attacks, viruses, or denials of service.

An examples of a denial of service occurred at the recent N.D.P convention where electors were prohibited from voting due to a restrictive program put in place by an outside source.

An example of an attack was an internet voting program test conducted by the City of Washington, D.C. that was reprogrammed by University of Michigan students to play the Michigan fight song.

The largest municipality in Ontario to use internet voting was Markham which has an electorate of 150,000.

The next largest municipalities to use internet voting in 2010 were Burlington and Peterborough, both of which have less than 100,000 electors. These municipalities have all acknowledged that the percentage of computer and internet users are high in their respective communities.

Overall municipalities using internet are finding that although the voting on advance polls has risen significantly, the overall percentage of voters has either remained the same or showed a slight improvement in numbers.

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<b>Pros</b>	<b>Cons</b>
<ul style="list-style-type: none"><li>• Possible increase in voter turnout.</li><li>• Possible reduction in line ups at the polls.</li><li>• Increase of accessibility.</li><li>• Addresses today's busy family lifestyles and work schedules.</li></ul>	<ul style="list-style-type: none"><li>• Misaddressed or stolen voter packages resulting from an inaccurate Voters' List.</li><li>• Ability for others to influence how an elector is to vote.</li><li>• Hacking, viruses or denial of services. (Average age of a hacker is 18-22 and they do it as a challenge.)</li><li>• Impossible to verify Voter identification.</li><li>• Socio-economic divisions within the municipality.</li><li>• No audit trail of paper ballots</li></ul>

The approximate cost for a Vote by Internet program is \$500,000 and would require the hiring of an internet election software provider. This cost does not include a marketing program that would be required to inform our electors.

This cost would be in addition to the base cost (\$1.1 million) to run a general election via voting tabulators.

**Vote by Mail**

Vote by Mail is a voting system used by municipalities in Ontario that have populations that consist of cottagers, are more rural, or have limited populations.

Each elector receives a voter information package which would include a ballot, declaration form and instructions on how to complete the voting process.

The municipality provides 2 envelopes with prepaid postage for the elector to return his or her ballot in one and the declaration form in the other. All ballots and declaration forms must be returned by the close of polls on Election Day to be counted.

After 8:00 p.m. on Election night the election team would then tabulate the ballots either by hand count or an electronic count scanner.

Ballots received after the 8:00 p.m. deadline on election night are not counted.

Pros	Cons
<ul style="list-style-type: none"><li>• Cost effective.</li><li>• Possible increase of electors voting.</li><li>• Simple process.</li><li>• Eliminate the cost of polling locations and staffing.</li><li>• Paper audit trail of ballots.</li></ul>	<ul style="list-style-type: none"><li>• Misaddressed or stolen voter packages resulting from an inaccurate Voters' List.</li><li>• Ability for others to influence how an elector is to vote.</li><li>• Impossible to verify Voter identification.</li><li>• Using a hand count system Election staff are required to interpret the intent of the elector on the certain ballots.</li><li>• Spoiled ballots through identifying marks. (Coffee stains, doodling, signatures, etc.)</li><li>• Over votes cannot be corrected.</li></ul>

With the inaccuracies of the Voters' List and the size of a large municipality the security of the vote would come under great scrutiny. This is not recommended as a means of voting for the City of Hamilton electorate.

The cost of Vote by Mail is approximately \$400,000.

### **Telephone**

Telephone voting is similar to vote by mail in that it is used by small municipalities and is oft times combined with other voting alternatives. This type of voting is rarely used.

Each elector would receive a voter information package that would explain how to access and complete their ballot. The elector would dial in, confirm their pin and then hear the audio ballot. They would then use the key pad to make their selections.

Once they have completed the ballot they are asked to review their selections. The ballot is then sent to a secure server and tabulated at the end of the day.

<b>Pros</b>	<b>Cons</b>
<ul style="list-style-type: none"><li>• Cost effective.</li><li>• Accessible.</li></ul>	<ul style="list-style-type: none"><li>• Misaddressed or stolen voter packages resulting from an inaccurate Voters' List.</li><li>• Ability for others to influence how an elector is to vote.</li><li>• Voter access due to call volumes.</li><li>• Concerns with navigating an audio ballot that which contains a number of candidates for each office.</li><li>• Impossible to verify Voter identification.</li><li>• No audit trail of paper ballots.</li></ul>

The inaccuracies in the Voters' List compounded by the possibility of technical problems make this method not feasible for a large city.

**CORPORATE STRATEGIC PLAN (Linkage to Desired End Results)**

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

***Healthy Community***

- ◆ An engaged Citizenry

**APPENDICES / SCHEDULES**

none