

## **Award of Negotiated Request for Proposal Ariba Document Number 2604476104 to Election Systems and Software Canada ULC for the Provision of Vote Counting Equipment for the City Clerk's Office**

**Date:** October 12, 2021

**To:** Executive Committee

**From:** City Clerk and Chief Procurement Officer, Purchasing and Materials Management

**Wards:** All

### **SUMMARY**

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The City of Toronto's current vote counting equipment has reached the end of its life, meaning that it cannot be adequately maintained and supported for further business functionality. A competitive procurement process was undertaken to acquire new equipment for use in the 2022 municipal general election and future years.

The purpose of this report is to advise on the results of Negotiated Request for Proposals (nRFP) Document Number 2604476104 for the provision of vote counting equipment, including digital scan tabulators, ballot marking devices, central count technology for mail-in ballot services and the required software and services. Authority is requested for the City Clerk to enter into and execute an agreement with the recommended Supplier, Election Systems and Software Canada ULC ("ES&S"), to purchase the equipment and services for the amount of \$14,714,569, net of all taxes and charges (\$14,973,545 net of HST recoveries).

### **RECOMMENDATIONS**

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The City Clerk and Chief Procurement Officer recommend that:

City Council, in accordance with Section 195-8.5B of Toronto Municipal Code Chapter 195 (Purchasing By-Law), authorize the City Clerk to enter into and execute an agreement, and any ancillary documents required to give effect to the agreement, with Election Systems and Software Canada ULC, being the top-ranked proponent meeting the requirements set out in the nRFP, for the purchase of vote counting equipment and related services, for a period of 10 years, with options in favour of the City to extend for up to five additional one

year terms, in the amount of up to \$14,714,569, net of all taxes and charges (\$14,973,545 net of HST recoveries). The agreement will be in accordance with the terms and conditions as set out in the nRFP and any other terms and conditions satisfactory to the City Clerk, and in a form satisfactory to the City Solicitor.

## FINANCIAL IMPACT

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The total potential contract award for the purchase of vote counting equipment, including related goods and services, is \$14,714,569, net of all taxes, and \$16,627,463, inclusive of all taxes. The total cost to the City is \$14,973,545, net of HST recoveries over the 15 year term (inclusive of the option years and contingency).

Funding for voting equipment is available in the City Clerk's Office 2021 Approved Capital Budget. Funding for the software and hardware maintenance services on 2,000 digital scan tabulators, 100 ballot marking devices, one central count technology unit, including optional services, is included in the City Clerk's Office 2022 Operating Budget and will also be included in the City Clerk's Office future year Operating Budgets and fully funded from the Election Reserve Fund. Financial details of the contract are shown below:

Table 1: Financial Impact Summary of Recommended Contract, net of HST Recoveries (dollar figures are in \$ million)

Year	One-Time Cost to acquire Voting Equipment (CGV052)+	Cost of services during municipal election - (GV0017)	Cost of hardware maintenance services during municipal election (GV0017)	Cost of optional services during municipal election - (GV0017)	Cost of potential future by-elections (GV0017)*	Annual maintenance costs (GV0016)	Total (net of HST recoveries)
2021	10.730						10.730
2022		0.117		0.045			0.161
2023						0.062	0.062
2024						0.064	0.064
2025						0.065	0.065
2026		0.126	0.486	0.048		0.066	0.727
2027						0.067	0.067
2028						0.069	0.069
2029						0.070	0.070
2030		0.137	0.526	0.052		0.072	0.787
2031						0.073	0.073
2032						0.074	0.074
2033						0.076	0.076
2034		0.148	0.569	0.057		0.077	0.852
2035						0.079	0.079
2023-2035					1.018		1.018
<b>Total (net of HST recoveries)</b>	10.730	0.528	1.581	0.202	1.018	0.914	14.974

Note+: The total value of the acquisition and implementation is \$10.730 million and includes a contingency of \$0.500 million.

Note\*: Costs of up to \$1.0176 million apply only if the vote counting equipment is used in any by-election(s) during the fifteen year period of the agreement, and is calculated on the basis of four potential ward by-elections and one City-wide by-election.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

## **DECISION HISTORY**

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City Council, at its meeting on September 30, 2020, received a report from the City Clerk providing updates on the planned procurement of new vote counting equipment in time for the 2022 general election, and the risks that the COVID-19 pandemic introduced into the procurement process.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX16.8>

City Council, at its meeting on October 2, 2017, authorized the City Clerk to negotiate and enter into an agreement with Election Systems and Software Canada ULC for the maintenance and support of vote counting equipment, as well as the supply of associated goods and services, over a four year period covering January 1, 2018 to December 31, 2021. The report also noted that the City Clerk would report to Council after the 2018 municipal election on replacement options for vote counting equipment for the 2022 municipal election.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX27.3>

City Council, at its meeting of December 13, 2016, authorized the City Clerk to negotiate and enter into an agreement with Election Systems and Software Canada ULC for the supply and installation of new modems and associated software in the City's vote counting equipment to allow for the continued wireless transmission of election night results for the 2018 election. Council also requested that the City Clerk further explore a partnership with Elections Ontario related to the sharing of their voting technology in future elections.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX20.5>

City Council, at its meeting of September 29, 1999, authorized the City Clerk to enter into a contract with Election Systems and Software Inc. for the acquisition of up to 1,850 optical scan vote tabulators and up to 100 touch screen voting units, including all necessary support and service agreements, at a capital cost not to exceed \$13.05 million (\$1.0 million in 1999 and \$12.05 million in 2000) over a term of fifteen years.

<https://www.toronto.ca/legdocs/1999/agendas/council/cc/cc990928/adm5rpt/cl001.htm>

## COMMENTS

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### **The City's Vote Counting Equipment is Now 20 Years Old**

The City of Toronto's existing vote counting equipment was purchased in 2000 from ES&S, with an initial capital investment of \$13.05 million. At the time of purchase, the life cycle of the equipment was estimated to be 15 years. However, through a series of upgrades and regular maintenance, its useful life was extended through to the 2021 by-election. The existing equipment has been used successfully in six general elections, 13 by-elections, and 45 instances of renting out the vote counting equipment to third parties.

The current agreement between the City of Toronto and ES&S for vote counting equipment products and services is set to expire on December 31, 2021. While the equipment has consistently proven to be reliable, quick and accurate, it is increasingly costly to maintain and may not be supported for the 2022 general election. Before the 2018 general election, City Council approved \$1.55 million for the installation of upgraded modems so that the equipment could continue to function on modern cellular networks, and a further \$1.6 million for general equipment maintenance and support. The existing vote counting equipment cannot easily adapt to potential future election methods such as Ranked Ballot Elections.

### **Conducting a Risk Benefit Analysis Study of the Technology Marketplace**

The City Clerk retained an external consultant in June 2019 to conduct a detailed analysis of the election technology marketplace and provide recommendations on replacing the City's election equipment. Considering Toronto's current deployment model and population trends, the analysis assumed the need for 2,500 vote counting units, with paper ballots as the authoritative source and the ability for the equipment to facilitate Ranked Ballot Elections.

The purpose of the study was to analyze the four main procurement methods and present findings that would enable the City to make an informed decision when choosing which approach to take. The procurement methods examined were:

- **Buy** new vote counting technology;
- **Lease** vote counting technology from Suppliers/third parties (other jurisdictions);
- **Rent** vote counting technology from Suppliers/third parties (other jurisdictions); or
- **Build** new vote counting technology (in-house development).

### **Balancing the Risks and Benefits of Each Acquisition Option**

The consultant's overall approach and analysis focused on minimizing risk to the City while providing value for money. Their study concluded that the rent and build procurement options presented the highest risk in terms of both security of supply and technical risks, and were therefore not recommended. While renting significantly reduces the upfront capital expenditure for purchasing equipment, it typically requires

the same implementation services over time and, over the long-term, the total cost of ownership through a rental option can end up being higher than buy or lease options.

The consultant also concluded that:

- Buy and lease options provide more reliable means of procurement.
- Longer term leasing mitigates supply concerns of a rental approach, and offers an advantage over buying because it allows the City Clerk to possibly upgrade to more secure and accessible equipment.
- Longer term leasing still carries a risk of supply shortages if the City Clerk chooses to upgrade the equipment before contract expiration, and introduces additional risks relating to previously used equipment.
- Buying provides the most secure and lowest risk option for ensuring availability and for putting in place the most rigorous controls for testing, quality assurance and verification.

Ultimately, the consultant recommended that the City pursue either a lease or buy option for procuring new equipment. These recommendations formed the basis of the Negotiated Request for Proposal that was issued in November 2020.

### **Considering Security and Accessibility**

In seeking new vote counting equipment, the City Clerk recognizes the balance that must be struck between the accessibility and usability of any new equipment and the need to ensure the security, secrecy and privacy of the vote and the overall integrity of the election. Cyber security has been recognized as a key concern by jurisdictions across North America, including the City of Toronto, and almost every jurisdiction is taking measures to modify their voting methodologies and strengthen organizational and technical capabilities to ensure the security of voting technology.

Both the Office of the Chief Information Security Officer and Technology Services, along with a variety of subject matter experts, were involved in drafting the nRFP and evaluating the proposals. With guidance from the Chief Information Security Officer, the City Clerk explicitly defined the security specifications for the new voting technology and solicited a detailed response from the Suppliers in their proposals at a technical design level about how the equipment is tested and validated. The cyber security of the City's vote counting equipment is paramount, and the Chief Information Security Officer's team will be tasked with ensuring that the 2022 election is conducted in a secure, protected and fair manner.

To ensure any new vote counting equipment and the associated software proposed are accessible to persons with various types of disabilities, Suppliers were required to demonstrate that their Solution conformed to the Accessibility for Ontarians with Disabilities Act (AODA) and World Wide Web Consortium's (W3C) Web Content Accessibility Guidelines and internationally-accepted standards identified in the nRFP.

To assist the nRFP Selection Committee in assessing accessibility and security in the proposed Supplier Solutions, a number of subject matter experts with specialized knowledge in these areas were consulted throughout the proposal evaluations. This

included accessible design experts from the Inclusive Design Research Centre at OCAD University and cyber-security experts from both Citizens for Better Elections and Free and Fair, two US-based, non-partisan organizations.

### **Exploring Elections Ontario's Voting Technology Sharing Program**

City Council, at its December 2016 meeting, directed the City Clerk to explore possible partnerships with Elections Ontario related to the sharing of their voting technology in future elections. Elections Ontario was at that time procuring new vote counting equipment and other technology for use in Provincial elections.

Elections Ontario used their new equipment for the first time in the June 2018 Provincial general election, and afterwards established the Voting Technology Sharing Program through which their voting technology is made available to Ontario municipalities to use in their own municipal elections.

When producing their report on vote counting technology options, the consultant hired by the City Clerk examined the possibility of taking advantage of Election Ontario's Voting Technology Sharing Program. The consultant surveyed a number of Ontario municipalities who had rented equipment through the program and found that it was typically smaller jurisdictions who rented it, and that these jurisdictions naturally required fewer units. Security of supply was not a significant consideration for these jurisdictions, unlike in larger jurisdictions that would require a greater number of units.

Given the extent of the vote counting equipment required by the City, the supply risk posed by relying on Election Ontario's equipment is significant. Elections Ontario runs provincial elections in June and can deliver equipment to the renter no earlier than July in an election year. However, the City of Toronto requires the equipment starting in the first quarter of the election year to ensure security of supply and to allow adequate time for testing and quality assurance of over 2000 units. This misalignment represents a significant barrier to using Election Ontario's equipment. Furthermore, due to limited quantities, Elections Ontario does not offer their assistive voting technology, digital ballot printing or central count technology for rental. Those who rent vote counting equipment from Elections Ontario are also responsible for negotiating their own individual sole source agreements with the Supplier—Dominion Voting Systems—for programming and other software-related services that are necessary to use the equipment in an election.

### **Competitive Procurement Overview**

The City Clerk is committed to ensuring that all purchases involved in delivering an election provide the best value possible for the citizens of Toronto. The City is obliged to maintain open, fair, competitive and transparent procurement processes in the acquisition of any vote counting equipment and software. The procurement approach in the Negotiated Request for Proposal ("nRFP") is compliant with this requirement, providing a fair and transparent process for all Suppliers.

The nRFP Ariba Document Number 2604476104 was issued on November 10, 2020, with a closing date of December 15, 2020. The closing date was later extended until January 11, 2021.

Five Suppliers were notified by email of the nRFP:

- Clear Ballot Group, Inc. ("Clear Ballot");
- Dominion Voting Systems Corp. ("Dominion Voting");
- Election Systems and Software Canada, ULC ("ES&S");
- Hart InterCivic, Inc. ("Hart"), and
- Voting Works.

The nRFP was also advertised on the City's website and 8 Suppliers viewed the documents online.

A total of four submissions were received by the January 11 deadline, from the following Suppliers:

- Clear Ballot;
- Dominion Voting;
- ES&S, and
- Hart.

The nRFP was structured as a "two-envelope" model, which required each Supplier to structure the first portion of their proposal to not include any dollar figures. The first portion of each proposal was therefore evaluated independent of cost to ensure each met the minimum mandatory requirements identified in the nRFP, and only if a Supplier had met these requirements would the separate cost-of-services portion of their proposal be examined and evaluated to determine the lowest cost provider.

To properly evaluate the criteria specified in the nRFP, a multi-team Selection Committee was established to conduct a comprehensive review based on a consensus format. The Selection Committee consisted of 13 total members across a variety of City divisions. An Executive Committee was also formed, consisting of the City Clerk, Deputy City Clerk of Election Services, Chief Information Security Officer, Chief Technology Officer and General Manager of Transportation Services.

Selection Committee members were assigned to specific sections of the nRFP according to their expertise, with four separate teams streamlining the evaluation process:

- Executive Committee,
- Overall Solution Committee,
- Functional & Non-Functional Requirements Committee, and,
- Technical Requirements Committee.

A variety of subject matter experts, representing divisions and organizations both internal and external to the City, were on hand to assist the Committee in each part of

the evaluation. Appendix A provides more information on the members and roles of the Selection Committee.

Due to the complexity of this call, a Fairness Monitor was also engaged to oversee the entire procurement process and ensure that it was carried out in a fair, unbiased and transparent manner. The Fairness Monitor was consulted on the size and composition of the Committee teams, and attended all demonstrations, presentations and group consensus scorings. BDO Canada LLP was hired as the Fairness Monitor and their Attestation Report can be found in Appendix B.

## **Proposal Evaluation**

The Selection Committee conducted the evaluation of proposals through three primary stages.

Stage 1 represented a simple pass/fail analysis in which each proposal was compared to the mandatory submission and Solution requirements that were identified in the nRFP. All four Supplier proposals passed Stage 1 and proceeded to Stage 2 of the evaluation process.

Stage 2 involved detailed rated evaluations, wherein each Supplier proposal was assessed and rated against the criteria in the nRFP. Under the previously described "two-envelope" model, Stage 2 evaluations were done completely independent of cost considerations.

Within Stage 2 were three sub-stages:

- 2A: Evaluation of Supplier's Qualifications
- 2B: Evaluation of Supplier's Solution Approach
- 2C: Demonstration and Executive Committee Presentation

In Stage 2A, Suppliers were required to demonstrate their status as viable and sound enterprises with the necessary staff, organization, culture, financial resources, market share and operational base to ensure their ongoing ability to deliver and support their proposed Solution throughout the equipment and system's useful lifetime. A minimum 70% score was required to proceed, and three of the four Suppliers met this threshold and continued onto Stage 2B: Dominion Voting, ES&S, and Hart.

Stage 2B involved the comprehensive evaluation of each Supplier's proposed Solution. This included their staffing and resources, as well as how their work plan and deliverables met the functional, non-functional, and technical requirements of the nRFP. Suppliers were required to meet a 70% threshold to proceed to Stage 2C, and two of the three Suppliers in this sub-stage met this threshold and continued onto Stage 2C: Dominion Voting and ES&S.

In Stage 2C, the remaining two Suppliers were required to give a presentation and demonstration to the Selection Committee that provided a closer look at their proposed Solution. This included how the vote counting equipment is built and configured, the end-to-end process of building an election, and the overall Solution's ability to fulfill the



required business outcomes. A minimum 70% threshold was again required to proceed, and both of the two remaining Suppliers—Dominion Voting and ES&S—met this threshold and proceeded to Stage 3.

Stage 3 represented the pricing evaluation. The sealed cost-of-services envelopes were opened for the remaining two Suppliers so that the Selection Committee could examine the proposed pricing, and scores were derived from a cumulative weighting criterion of both a purchase pricing option and a lease pricing option, as outlined in the nRFP. In addition, the independent consultant that conducted the risk benefit analysis was engaged to assess and confirm that the bids from the remaining two Suppliers correctly reflected the products and services offered in their proposals.

### **Evaluation Results and Proof of Concept**

ES&S emerged as the Supplier with the highest combined score based on the cumulative weighting criterion from the 3-stage proposal evaluation described above.

Before beginning contract negotiations, ES&S—as the highest-scoring Supplier—was required to go through a Proof of Concept phase as final confirmation that their proposed Solution for the transmission of election results was technically feasible and would not risk election integrity when generating results. The Proof of Concept confirmed the feasibility and security of the Solution.

### **Negotiations and the Decision to 'Buy'**

Having successfully completed the Proof of Concept, contract negotiations with ES&S began on August 3, 2021 and concluded on October 6, 2021. Negotiations were conducted by a cross-divisional team led by the Deputy City Clerk and Director of Data and Policy in Election Services, in conjunction with Legal Services to assist on the procurement.

In entering negotiations, the City Clerk made the decision to pursue a "buy" option with the Supplier. This decision was based on the prioritization of being able to maintain a strict chain of custody of the voting equipment at all times, as well as the need to ensure ballot production on tight turn-around times and the seamless integration of equipment within Toronto Election's systems. Buying provides the lowest risk option for ensuring availability of supply for every election and by-election, and for the most rigorous controls for chain of custody, testing, quality assurance and verification.

Through the negotiation process, the City was able to secure a number of key outcomes:

- Negotiating an agreement up to fifteen years with total capital costs of \$10.1 million, representing a significantly lower cost than the original 2000 contract's capital costs of \$13.05 million.
- Securing a five year warranty period on hardware parts from the initial one year, which now includes two general elections (2022 and 2026).

- Negotiating annual price increases tied to the Consumer Price Index or two percent—whichever is lower—and any additional optional rental and purchase rates fixed until 2025.
- Building flexibility into the agreement to cover possible scenarios in which changes to provincial legislation over the course of the 15 year agreement impact the equipment or related services (e.g., Ranked Ballot Elections, risk limiting audits and future technology that improves upon the transparency and verifiability of election results).
- Disposing of old equipment by ES&S, at no cost to the City.

The terms and conditions of the nRFP negotiation process do not form a legally binding agreement until such time the agreement is fully executed after obtaining approval from City Council to award the contract. The City Clerk is therefore seeking the authority to formally enter into an agreement with the recommended Supplier, Election Systems and Software Canada ULC, as the highest-scoring Supplier meeting the requirements set out in the nRFP.

If requested, the Supplier's scores and staff analysis of the evaluation results can be provided to Members of Council in-camera.

The Fair Wage Office reported the recommended Supplier has reviewed, understands and will fully comply with the Fair Wage Policy and Labour Trades requirements.

## **CONTACT**

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## **SIGNATURE**

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John D. Elvidge  
City Clerk

Michael Pacholok,  
Chief Procurement Officer

## **ATTACHMENTS**

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Appendix A - Selection Committee Team Members and Roles  
Appendix B - Fairness Monitor Attestation Report