

# The Procurement Office

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## **ELECTRONIC REVERSE AUCTIONS: DEBUNKING MYTHS AND MISCONCEPTIONS**

**April 2018**

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## **Introduction**

Electronic reverse auctions represent the cutting edge of using procurement automation to achieve cost savings. With reference to leading practices in Europe, the UK and the US, this paper will explain how Canadian institutions and other late-adopter jurisdictions can implement these leading-edge cost-saving platforms in a treaty-compliant manner that aligns with the intricacies of tendering law.

To say that electronic reverse auctions (“ERAs”) have met some resistance across certain segments of industry would be an understatement. However, the widespread worldwide implementation of ERAs, along with their formal adoption as a legitimate public tendering method in the latest round of public sector procurement reforms, call for a better understanding of how to properly leverage this technology to achieve greater costs savings for the Canadian taxpayer and for taxpayers in other late-adopter jurisdictions.

### **A. Debunking Industry Criticisms**

In December 2001, the Canadian Construction Association released a Special Bulletin opposing ERAs. That Special Bulletin warned that ERAs are a “radical departure” from conventional construction tendering:

#### **An Owner's Guide to Reverse Auctions**

Reverse Auctions: What are they? Reverse auctions (also commonly referred to as 'competitive bidding events'), are an Internet-based method of bidding for the supply of goods and services. The growing use of electronic commerce has resulted in some owners/purchasers exploring use of this procurement method, including the procurement of construction services. The intent of reverse auctions is to hold a live, on-line bidding competition, whereby the successful bidder is determined by the lowest price submitted to the tendering authority at the conclusion of the auction.

#### **Why should reverse auctions not be used for construction?**

The Canadian Construction Association (CCA), in consultation with its Standard Practices Committee, General Contractors Council, Trade Contractors Council and many local construction associations across Canada, has expressed grave concerns with respect to the use of reverse auctions for the procurement of construction services.

The CCA recognizes the value and benefits of Internet-based bidding and endorses its use when intended to increase the competitiveness and efficiency of the construction tendering process. In this regard, CCA is currently working with owners,

contractors and other construction industry representatives to develop appropriate guidelines for the use of electronic bidding practices. However, the concept of a bidding auction is a radical departure from the principles of recommended construction procurement practices, and as such, is strongly opposed by CCA and its constituent representatives.

The Special Bulletin also maintained that ERAs do not respect industry practices, are not designed for construction procurement, could lead to “cut-throat” pricing and corner cutting, may subject bidders to foreign laws, and could breach Canadian tendering laws and trade treaties. The Bulletin stated that “The construction industry's objection to reverse auctions stems from many risks and pitfalls associated with their use.” The CCA explained its concern over the failure to respect industry practice as follows:

Reverse auctions do not respect the prevailing industry practices for construction procurement. The industry has long-recognized practices for traditional design-bid-build construction bidding, stipulated in documents such as CCDC 23 'A Guide to Calling Bids and Awarding Contracts' and CCDC 29 'A Guide on Standard Contracting and Bidding Procedures'. Both of these guides (prepared in close consultation with the industry, contractors, public and private owners and the design community) advocate best practices which are specifically developed and used for construction procurement. Reverse auctions disregard these recommended practices.

The CCA also asserted that ERAs are not designed for construction procurement:

Owners, contractors and design professionals are familiar with the traditional bidding process and clearly know what obligations they must meet in order to fulfil their responsibilities. The reverse auction process is not designed for construction procurement, thus its use creates greater likelihood of disputes, bad faith and an increased risk of claims. By respecting prevailing industry bidding practices, owners demonstrate commitment to the project and lend greater credibility.

Furthermore, the CCA claimed that ERAs could lead to “cut-throat pricing” and “corner cutting”:

Under traditional bidding practices, the owner is receiving a contractor's absolute best 'competitive' price outright for providing the services required. Internet auctions encourage contractors to initially submit artificially inflated prices, knowing that there will be an opportunity to re-submit a more competitive price. As a result, an owner runs the risk of not receiving the contractor's best competitive price. In other cases, this can also lead to 'cut-throat' pricing by contractors, inevitably

forcing them to cut corners to cover the difference from their best competitive price and invites greater potential to compromise the quality of a project.

The CCA also detailed concerns that ERAs could expose bidders to foreign laws and breach Canadian laws and treaties:

Traditional bidding practices have mechanisms in place to deal with governing laws and regulations, bid and contract security, mistaken bids, issuance of addenda, etc. Reverse auctions may be governed by the laws of the location of the auction's service provider, which is often remote from the actual construction project's or owner's location.

The extension of bid closing times and the ability to re-submit prices as allowed by reverse auctions can be interpreted as a form of pre-closing negotiation or bid shopping, which is discouraged within the industry as it compromises the spirit of a fair and open competitive process. Moreover, for public owners reverse auctions may contradict certain existing and proposed trade agreements.

On September 8, 2006, the CCA released a communiqué after the federal Minister of Public Works rejected the use of ERAs. The communiqué applauded the Minister's decision:

**CCA WELCOMES GOVERNMENT'S DECISION TO ABANDON REVERSE AUCTIONS**

SEPTEMBER 8, 2006

OTTAWA — The Canadian Construction Association (CCA) today applauded the announcement by Public Works and Government Services Canada Minister Michael Fortier to take off the table the idea of using reverse auctions as part of the federal government's current procurement review process. Over the past several weeks, CCA, along with many of its local and provincial member associations, had written the Minister asking that the government refuse to consider reverse auctions as a potential procurement process.

The CCA noted that the Minister had "responded in full" to its recommendations regarding ERAs:

In an official release issued yesterday from Public Works and Government Services Canada, Minister Fortier states: "We are working with the industry to make sure we understand their concerns and are in a position to address them in the best in-

terests of Canadians....That is why, after further consideration, I have asked my officials to take off the table the use of reverse auctions as part of our procurement strategy for all categories of commonly purchased goods and services." CCA has long maintained that because reverse auctions act contrary to the traditional and accepted method of "sealed bid" procurement for construction services, the federal government needed to take a strong stand against their use. The Minister's announcement yesterday responded in full to CCA's recommendation.

The CCA also expressed its hope that this would "send a clear signal" to public and private sector owners:

"We are very pleased that the Minister has heard our message against the use of reverse auctions," stated Michael Atkinson, President of the Canadian Construction Association. "In the construction industry, reverse auctions distort traditional bidding methods, and we hope that the federal government's abandonment of reverse auctions will send a clear signal to other owners, both public and private, that their use is unacceptable for construction procurement." The Minister also confirmed that consultations with industry stakeholders will continue over the fall. CCA looks forward to working with the government on procurement reform, secure in the knowledge that reverse auctions are no longer being considered.

In his September 8, 2006 article in [itbusiness.ca](http://itbusiness.ca) entitled "Public Works pulls plug on reverse auction plan" Shane Schick wrote that "Canadian technology providers and vendors were in a celebratory mood Friday following a decision by Public Works and Government Services Canada to scrap its planned use of reverse auctions as a vehicle for procurement reform." He noted that "Procurement reform has attracted considerable lobbying from IT industry associations and resellers, who worried the PWGSC plan would severely limit the opportunity for small businesses to compete on government contracts." The article included the following explanation from the industry:

Bernard Courtois, president of the Information Technology Association of Canada (ITAC) agreed that Fortier was doing the right thing, but he warned that the issue is much broader than simply the use of reverse electronic auctions. "As a technology industry, it's pretty hard for us to be against using technology for procurement, but there was a communications issue, and how they would use the auctions," he said. "Every time a buyer tries to do something to save money, if you're a supplier it's a change, it's a disruption."

Schick also noted that “PWGSC is still obligated to save \$2.5 billion in spending over the next five years, though it has not indicated what other methods it might use.”

On September 3, 2015, the Edmonton Construction Association released a Tender Advisory Notice. The communication reads as follows:

**Tender Advisory Notice**

Dear ECA Members,

It has come to our attention that a US corporation, Honeywell International Inc. plans to solicit bids for Project Edmonton Phase II at the Standard Life Building using a reverse bid auction process. The Edmonton Construction Association (ECA), and the Canadian Construction Association (CCA) strongly opposes the use of reverse bid auctions for the procurement of construction services.

As our policy documentation states “The extension of bid closing times and the ability to resubmit prices under a reverse auction is a form of pre-closing negotiation or bid shopping, which compromises a fair and open competitive process.”

We have advised Honeywell and their legal department verbally, and in writing of our views, and have informed them that the ECA is rallying our member companies to not participate in this reverse auction tender.

All ECA members benefit from the standard and fair tendering practices that we have developed over the past century. Now is the time to demonstrate our unity as we continue to give leadership in construction. Thank you for doing your part!

To reiterate, we are asking that none of our members participate in this bid process until it is adjusted to comply with our Canadian Standard Practices.

All the best in your fall season!

Proudly Serving Our Members,

John McNicoll  
Executive Director

Since its success in stopping federal deployment in 2006, the CCA has maintained its opposition to ERAs. Under Article 4.0 Industry Practices, its September 2017 policy statement reads as follows:

#### 4.6 Reverse Auctions

CCA endorses the use of electronic procurement provided that it maintains the principles that are intrinsic to the construction bidding process and that it is intended to increase efficiency. CCA opposes the use of reverse auction.

On February 28, 2018, the Ontario General Contractors Association (OGCA) wrote to the Ontario Public Buyers Association (OPBA) and the Georgian Bay Area Public Purchasing Co-Operative (GBAPPC), challenging the planned use of ERAs. The OGCA confirmed it had been “made aware of services being offered” that were “promoting” the use of ERAs:

Dear Sir or Madam:

The Ontario General Contractors Association represents over 200 general contractors throughout Ontario. We provide the industry with a number of services including the review of tender documents and the tendering process. This is done in the belief that a clear, concise and equitable set of bidding documents, combined with a fair, open and transparent tendering process, will benefit all of the parties involved: the design professional, the contractor and most importantly, the owner.

We have been made aware of services being offered by Paul Emanuelli Procurement Office promoting the use of Reverse Auctions.

The OGCA asserted that ERAs are a form of “bid shopping”, that offend industry practice, fail to provide best price and run contrary to Canadian procurement law:

Reverse bid auctions are a form of “bid shopping” which is considered by Canadian Courts to be “repugnant conduct which has no legitimate place in the proper operation of the tendering paradigm” (see *Stanco Projects Ltd. v. British Columbia* (2004), 32 B.C.L.R. (4th) 302 (B.C.S.C.)). OGCA strongly objects to the use of reverse bid auctions, not only because their use offends prevailing, industry best practices, but because we do not believe they will provide the desired best price or best value for you as a purchaser of construction services and because they are contrary to the spirit of established procurement law in Canada.

The OGCA also cited two US reports from 2004 and 2005 that raised a series of concerns about ERAs:

A report released by the U.S. Army Corps of Engineers (USACE) in 2004 came to the same conclusion. From October 2002 to September 2003, USACE conducted a pilot program to evaluate the use of reverse auctions on its construction projects. It concluded that the use of reverse auctions should NOT be recommended for the procurement of construction services, because:

- Reverse auctions are not well suited to construction procurement. Construction services cannot be equated to commodities. They are not identical goods under identical conditions. They have too many variables and are one-of-a-kind projects under one-of-a-kind conditions;
- Reverse auctions have no valid method to measure savings;
- Reverse auctions are a game of strategy that promote “bid-gaming.” The bid game is not “How low can I go?” but “How low do I have to game my bid?” Low bid is not necessarily the lowest bid;
- Reverse auctions are very labour intensive; and
- Reverse auctions show no real return on investment.

The USACE report concluded instead that the traditional “sealed bid” method is to be preferred for construction procurement since it entails a “one-shot” winner takes all environment thereby causing bidders to give their best price first. You can find more information at <https://www.agc.org/reverseauction>.

A study of reverse auction use in the construction industry was conducted at Louisiana State University. A preliminary report released in January 2005 found that with respect to all existing evidence regarding reverse auction use in the construction industry, “There is no data supporting the claims of costs savings for construction services.”

The OGCA then reasserted that ERAs are not allowed under Canadian law, and requested confirmation that ERAs were not being contemplated by the OPBA or the GBAPPC:

Finally, it is important to remember that reverse bid auctions are an export from the United States. As such, they do not take

into consideration the unique legal principles that apply in Canada to the construction tendering process that started with the 1981 decision of the Supreme Court of Canada in the Ron Engineering case. That case established unique Canadian law that survives today which essentially states that a “bidding contract” comes into existence as soon as a compliant bid is tendered in response to a bid call.

The U.S. legal environment and the underlying concept behind reverse bid auctions are that a bid is an opening offer which can then be negotiated. That is NOT the case in a Canadian legal setting. Here in Canada, contractors know that their first bid price automatically establishes a binding contractual relationship and therefore also know that it must be their best price.

The Ontario General Contractors Association strongly urges you to ensure that Ontario public owners will continue to follow prevailing procurement and contracting practices that are supported by both the Canadian construction industry and Canadian Courts, and asks that you confirm that the use of reverse bid auctions is not being contemplated by OPBA or GBAPPC.

Yours sincerely,

ONTARIO GENERAL CONTRACTORS ASSOCIATION

Clive Thurston  
President

CC: Michelle Palmer, President, OPBA  
Eric Lee, Canadian Construction Association  
Construction Design Alliance of Ontario  
Council of Ontario Construction Associations

Notwithstanding the OGCA correspondence, in March 2018 GBAPPC released a Negotiated RFP with a second-stage ERA. That procurement was for copy paper, not construction.

In summary, according to the above industry criticisms:

1. ERAs are a “radical departure” from construction industry tendering practices and should be boycotted.
2. ERAs can lead to “disruptive” and “cut-throat” price reductions and corner cutting but don’t save money.
3. ERAs may expose bidders to foreign rules and breach Canadian laws and trade treaties.
4. ERAs may block access for small suppliers.
5. ERAs are an illegal form of “bid shopping”.

However, claims of illegality and barriers to access appear to be greatly exaggerated since over 20 Canadian police forces already use electronic auctions to sell seized and lost goods online. Here’s what Police Auctions Canada has to say about its online bidding program at [policeauctionscanada.com](http://policeauctionscanada.com):

#### **Welcome to Police Auctions Canada**

The vast majority of items auctioned by Police Auctions Canada are derived from law enforcement agencies, transit commissions, asset management, and other public municipalities. Police Auctions Canada brings the consumer an exciting online auction format with the thrill of Police Auctions. These items are typically seized, forfeited, or found. Although we are not privy to specifics of where the items originated, the possibility of every imaginable item allows for an eclectic array of products to be showcased. What makes us a cut above the rest is that our auction is ongoing 7 days a week, all year round. Our loyal repeat customers know that.....Smart buyers come for the value and stay for the service.

As Police Auctions Canada explains, you can now bid 24/7 on seized or lost items from the comfort of your own home:

Previously, this merchandise has been sold off periodically at an auction event, held at a specific location. Now Toronto, York Region, Waterloo, Barrie, Peterborough, Windsor, Grey County, Norfolk, Collingwood OPP and Halton, Hamilton, Owen Sound, Orangeville, Shelburne, St. Thomas, Barrie, Guelph, South Simcoe, Chatham-Kent, Brantford, Sudbury Police Service, University of Guelph Campus Community Police, Brock University, Laurier University and University of Toronto, and Brampton Transit in conjunction with Police Auctions Canada, are moving

their auctions online and into your home. Check back frequently for updates of our exciting product selection.

In fact, even the CCAs 2001 Special Bulletin recognized that ERAs are “suitable for supplies and materials”:

Reverse auctions can be suitable for the procurement of supplies and materials, but not when combined with construction services. A supplier of stand alone office products or automobiles, for example, can easily establish their absolute minimum prices and profit margins, as these products are often catalogue items, with easily predetermined unit costs for production and delivery. Construction materials and services for a project, on the other hand, are always considered as a prototype. The scope of each construction project has a different set of factors (such as program, project location, site conditions, local codes and permit fees, material changes/availability, fluctuating labour conditions, etc.) which affect the contractors’ bid estimate and an acceptable minimum profit margin.

Police Auctions Canada uses an online version of the English auction, described in a 2007 study entitled “Electronic Reverse Auctions in the Federal Government” by Whitney E. Brown, and Lana D. Ray, as follows:

The English auction is the auction that most people envision when remembering auctions they have seen for art, jewelry, or antiques. Research by Kambil and van Heck (2002) explains that the English auction has been around since 500 BC and is commonly used by famous auction houses such as Sotheby’s and Christie’s (p. 75). English auctions have one seller, or auctioneer, who is trying to get the highest price possible for an item. Multiple buyers, or bidders, compete by shouting out prices in succession until there is one bidder left bidding the highest price he is willing to pay.

Traditional English auctions, complete with live-shouting, can be seen on TV on Storage Wars, A&E’s all-time most popular show. Brown and Ray note that the English Auction is the most commonly used online auction format for selling to the public:

Campbell (2006) reports that if it is an internet auction, such as the most popular of all—eBay—then the bids are submitted electronically rather than being shouted. The item is then sold to the highest bidder at the last bid price (p. 349). During English auctions, the number of buyers bidding is typically known by all for the duration of the auction (Carter, 2004, p. 231). The length of the auction is determined by the auctioneer or seller, and time is not usually a determining function of the outcome—unless the auction is performed online. For instance, e-

Bay employs a fixed-time function which pressures bidders to play against the clock and each other in order to determine a winner.

This format is also popular with Canadian consumers, who have been bidding online using e-Bay since the year 2000.

ERAs are simply a sub-category of the electronic auction. As Brown and Ray explain, ERAs use the English auction format in reverse since ERAs: (1) are run by a single buyer going to market for bids from multiple suppliers; (2) suppliers bid down and win by offering the lowest cost:

The most common version of the reverse auction uses the same concept as the English auction, but backwards. There is one buyer and multiple suppliers “who submit successively decreasing bids until no other bidder will announce a lower bid” (Alper & Boning, 2003, p. 11). The last bidder is the winning supplier who sells his item to the buyer or is awarded the contract for that lowest bid price.

ERAs are typically conducted with no entry fee to bidders on easy-to-use ERA platforms supported by platform service providers or purchasing institution staff. Concerns that ERAs may create barriers to entry for Canadian government contractors are greatly exaggerated since members of the general public in Canada have been bidding online on eBay for almost twenty years and over 20 Canadian police forces now clear seized and lost property with online bidding at [policeauctionscanada.com](http://policeauctionscanada.com). Contractors who are interested in winning government work should also be able to navigate similar online bidding technology into the 2020s.

Another common industry argument, which was asserted above by the Ontario General Contractors Association, is that the ERA is a foreign practice imported from the US and that it does not align with Canadian law. While it is true that in the US the courts do not apply Canada’s Ron Engineering “Contract A” bidding process contract rules, other jurisdictions that recognize the same bidding process rules as Canada, including the UK and its overseas territory, the Cayman Island, are already using ERAs.

Canada’s Ron Engineering “Contract A” bidding process contract rules were recognized in the UK by the Court of Appeal of England and Wales in the 1990 decision in *Blackpool and Fylde Aero Club Ltd. v. Blackpool Borough Council*. However, the UK, which is well ahead of Canada in harmonizing its procurement rules and practices with common global standards, has formally recognized ERAs. The bidding process contract rules have not created an obstacle to ERA deployment in the UK.

For example, in 2004 the UK Central Buying Consortium (CBC), a non-profit federation of 21 local authorities in southern England, conducted its first ERA. Led by Coventry City Council – Procurement Services, the ERA was for a direct supply of office stationery and computer consumables. As the CBC summarized in its report:

Market intelligence suggested that stationery and computer consumable supply chains were starting to merge and it may be beneficial to explore the possibilities of tendering the two commodities together. The Management Group agreed and invited Coventry City Council to lead on this contract using an e-auction as part of the tendering process.

The purchasing group leveraged the assistance of a pre-approved vendor to provide fully managed ERA services for the event:

Working closely with Achilles Information Limited, one of the five approved vendors to supply a fully managed reverse e-auction management service under the OGC Electronic Reverse Auction Framework, the CBC were able to produce a programme to deliver the CBC requirements and incorporate a successful reverse e-auction into the tender process.

The evaluation was based on price and non-price factors, with price factoring for 55% of the total weighting:

The award of the contract was subject to Most Economically Advantageous Tender (MEAT) criteria. The evaluation ranking elements included price, delivery, availability, quality, range offered and backup support services. The evaluation scoring was weighted as 55% price and 45% for non-price elements.

As reported by the CBC, the ERA process enabled the group to run two bidding events within short timeframes and receive multiple bids from prequalified bidders:

### **Benefits**

The e-auction comprised of two bidding events:

Event 1 – Computer Consumables: with two lines OEM and Compatibles.

Event 2 – Stationery: with two lines Core and non-core.

Event 1. Eight suppliers invited to participate in auction. The duration of event 1 was 90 minutes with 87 valid bids submitted.

Event 2. Five suppliers invited to participate in auction. The duration of the event was 150 minutes with 78 valid bids submitted.

The process produced significant price savings, received positive overall reviews and provided an early example of the more widespread use of ERAs across the UK today:

Based on the £8M estimated CBC spends per year (£3m stationery and £5M computer consumables) the e-auction delivered an estimated total saving of £186K p.a. (£150K 30% on stationery and £36K 18% on computer consumables). The e-auction allowed the CBC to achieve best market prices in a short time scale, increased competition and the process considered to be open, natural and fair way of achieving competitive prices. The CBC members provided positive feedback both on the auction process and of the outcome. Members were encouraged to consider hosting an e-auction on their forthcoming contracts.

These UK examples contradict industry assertions that ERAs do not save government money. In fact, in their 2010 article in the *Journal of Public Procurement* entitled “Electronic Reverse Auctions and the Public Sector: Factors of Success”, Moshe E. Shalev and Stee Asbjornsen highlighted the following UK statistics regarding cost savings achieved using ERAs:

...the United-Kingdom Office of Government Commerce [OGC] reported savings of £50 million in IT hardware e-RAs over four years, and anticipating total savings of £270 million through all e-RA purchases by the end of fiscal year 2011/2012 (OGC, 2010)

Canada’s Ron Engineering “Contract A” bidding process rules also apply in the Cayman Islands, a UK overseas territory, pursuant to the 2003 Privy Council decision in *Pratt Contractors v. Palmerston North City Council*, which is the Commonwealth equivalent of Canada’s Ron Engineering. Yet, the Cayman Islands launched its first ERAs in 2017 and has since expanded that program after the success of its pilot project.

As reported by the Cayman Islands Procurement Director, Craig Milley, in a May 2017 interview with The Procurement Office, the Cayman Islands’ pilot project successfully hit the industry-standard target by achieving nearly 20% cost savings in its initial deployment. As Milley summarized, “in the auctions we’ve done to date, we achieved a savings of just over 19%. It wasn’t a surprise. We were expecting to be in that 20% range, that was what the literature and studies had shown of what the initial savings should be in our first use of electronic reverse auctions. We found that we were right in the target zone.” Like the UK rollout, Cayman’s test pilot also proved ERAs can save government money.

How are these jurisdictions able to run ERAs if the Ron Engineering Contract A bidding process rules are also recognized in their legal systems? Very simply. The law is clear that purchasing institutions can avoid the Ron Engineering operating system in favour of

a more flexible set of traditional contract protocols that permit negotiations and auctions. With proper legal advice, purchasing institutions can structure their ERAs to use traditional contract law, rather than the single fixed-bid sealed-envelope tendering format that creates the Ron Engineering Contract A bidding process and its related restrictions.

The OGCA's statement noted above (underlined below for emphasis) confuses this otherwise clear point of law:

Reverse bid auctions are a form of "bid shopping" which is considered by Canadian Courts to be "repugnant conduct which has no legitimate place in the proper operation of the tendering paradigm" (see Stanco Projects Ltd. v. British Columbia (2004), 32 B.C.L.R. (4th) 302 (B.C.S.C.)). OGCA strongly objects to the use of reverse bid auctions, not only because their use offends prevailing, industry best practices, but because we do not believe they will provide the desired best price or best value for you as a purchaser of construction services and because they are contrary to the spirit of established procurement law in Canada.

The OGCA cites the Stanco case as alleged authority for the fact that ERAs are an illegal form of bid shopping. This is inaccurate. While the Stanco case rightfully criticized the practice of bid shopping, which is prohibited under Canadian law, the case never said that ERAs are a form of bid shopping. The illegal bid shopping in the Stanco case had nothing to do with ERAs. Furthermore, other than its reference to the Stanco case, the OGCA failed to provide any other legal authority in its correspondence for its assertion that ERAs are a form of bid shopping and therefore unlawful.

In fact, the dispute in Stanco was over a conventional construction tendering process using sealed-envelope, one-time irrevocable bids. The consulting engineers hired by the BC government broke the Ron Engineering Contract A bidding process rules by seeking follow-up bids instead of awarding to the original low bidder. This is what the bid shopping ruling was based on. The case had nothing to do with ERAs. ERAs were never even mentioned in the decision.

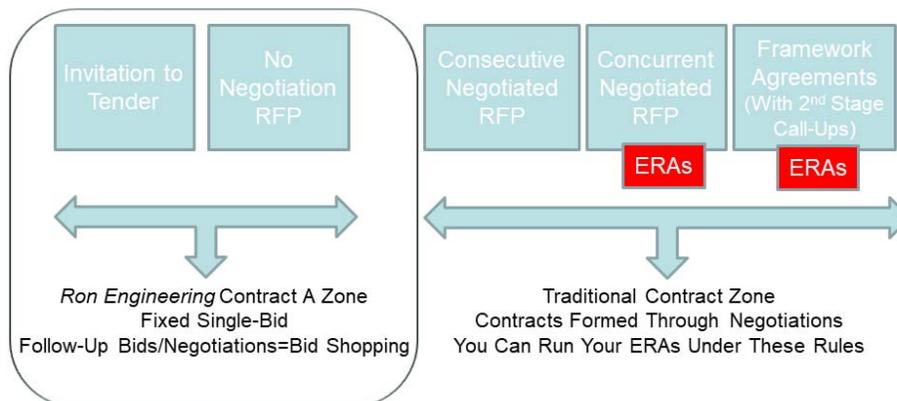
The OGCA statements are also misleading in that they imply that the Ron Engineering Contract A bidding process rules apply to all bidding situations, when binding Supreme Court of Canada precedent recognizes the exact opposite. The Supreme Court of Canada's 1999 decision in *M.J.B. Enterprises v. Defence Construction* confirmed that not all bidding processes create the Ron Engineering Contract A bidding process rules. A properly structured ERA would not be conducted using those rules, but would instead be run under traditional contract rules.

This clear and binding point of law has been applied with consistency by the Canadian courts. It was recently recognized (with underline added for emphasis) in the April 2015 decision of Canada’s Federal Court of Appeal in *Rapiscan Systems Inc. v. Canada*:

An important feature in a procurement process is the established and notional contract known as “Contract A” that is created when a bidder responds to the purchaser’s tender call and submits a tender (*Ontario v. Ron Engineering & Construction (Eastern) Ltd.*, [1981] 1 S.C.R. 111). It is settled law that the formation of the said “Contract A” in a procurement process will create implied rights and obligations arising out of the said process...which is distinct from the contract to be awarded at the conclusion of the bidding process (“Contract B”).

Pursuant to *M.J.B. Enterprises Ltd. v. Defence Construction (1951) Ltd.*, [1999] 1 S.C.R. 619 [*M.J.B. Enterprises*], the Supreme Court of Canada established that upon submission of a tender, “Contract A” will not necessarily arise. The creation of a “Contract A” will depend on the intention of the parties - as with the formation of any contract - and the terms and conditions established in the tendering documents (*M.J.B. Enterprises; Martel Building Ltd. v. Canada*, 2000 SCC 60, [2000] 2 S.C.R. 860 and *Naylor Group Inc. v. Ellis-Don Construction Ltd.*, 2001 SCC 58, [2001] 2 S.C.R. 943). In the event that no “Contract A” is created, it follows that, in principle, the parties are governed by the traditional law of contracts and the rights and obligations implied in a “Contract A” do not arise. (Paul Emanuelli, *Government Procurement*, 3d ed. (Lexis, 2012) at page 68).

The Ron Engineering Contract A bidding rules would not apply under a properly structured ERA. An ERA would therefore not constitute bid shopping. This is illustrated in the following diagram:



As with the technological barrier to entry criticisms, the “illegality” arguments advanced within industry are inaccurate and misleading. These “illegality” assertions are based on the incorrect application of rules that apply to conventional fixed-bid tendering formats but would not apply to properly structured ERAs. While these “illegality” arguments may be unfounded, they do underscore the importance of obtaining proper legal advice when embarking on an ERA process to ensure that the process is appropriately structured to comply with applicable tendering laws and broadly recognized ERA implementation practices. The following section discusses these global standards in greater detail.

## **B. Understanding Global Standards for ERAs**

The 2011 UN Model Procurement Law defines an “electronic reverse auction” (“ERA”) as “an online real-time purchasing technique utilized by the procuring entity to select the successful submission, which involves the presentation by suppliers or contractors of successively lowered bids during a scheduled period of time and the automatic evaluation of bids.” As the 2011 revision to the UN protocols recognizes, it is broadly accepted as a common global standard for public institutions to leverage the use of technology to enhance price competition by utilizing ERAs to seek multiple real-time bids from competing suppliers.

In fact, in December 2005, prior to the UN ratification, the World Bank released its own “e-Reverse Auction Guidelines for MDB Financed Procurements” which authorized the use of ERAs for development bank financed projects. Those guidelines contained a series of implementation standards:

- The value of the competition should be sufficient to encourage competition, but not so high as to limit bidders.
- An ERA should not be used to lock out bidders who do not have access to the required technology and ERA events should not start until all eligible bidders are activated.
- There should be good intelligence about the relevant market to guard against bidder collusion.
- The procurement requirements must be accurately specified and the process rules and evaluation criteria must be transparently disclosed.
- Where bidders are required to prequalify, the prequalification process must be conducted in accordance with standard transparent procurement practices.
- The auction platform should run automatically without human intervention and should provide transparent real-time ranking adjustments.
- The identity of bidders should not be disclosed.

- The purchasing authority should disclose the specific protocols that will govern the end of the bidding event.

The World Trade Organization's Government Procurement Agreement (GPA), which was updated in 2014, now also officially recognizes electronic auctions in government procurement, defining the process as follows:

**electronic auction** means an iterative process that involves the use of electronic means for the presentation by suppliers of either new prices, or new values for quantifiable non-price elements of the tender related to the evaluation criteria, or both, resulting in a ranking or re-ranking of tenders;

The WTO's GPA contains the following ERA provisions:

#### **Article XIV Electronic Auctions**

Where a procuring entity intends to conduct a covered procurement using an electronic auction, the entity shall provide each participant, before commencing the electronic auction, with: (a) the automatic evaluation method, including the mathematical formula, that is based on the evaluation criteria set out in the tender documentation and that will be used in the automatic ranking or re-ranking during the auction; (b) the results of any initial evaluation of the elements of its tender where the contract is to be awarded on the basis of the most advantageous tender; and (c) any other relevant information relating to the conduct of the auction.

Canada is a signatory to the WTO's GPA, having signed on to the original version in 1994, and to the updated version that contains the ERA protocols in 2014.

In 2017, Canada's federal, provincial and territorial governments entered into the Comprehensive Economic and Trade Agreement with the European Union (CETA). To harmonize domestic practices with European and global practices, they also replaced the Agreement on Internal Trade (AIT) with the new Canadian Free Trade Agreement (CFTA). Both of these new trade treaties now officially recognize the use of ERAs in Canadian public procurement.

To better understand how to implement ERAs in Canada, it is useful to consider practices within the European Union, UK and US, where many of the global standards originated and where ERAs are a well-established practice.

Like the WTO GPA, the European Procurement Directive was also updated in 2014 and contains detailed ERA provisions. The interpretive notes to the directive recognize that ERAs may not be appropriate for design-based projects involving intellectual services:

It should be clarified that electronic auctions are typically not suitable for certain public works contracts and certain public service contracts having as their subject-matter intellectual performances, such as the design of works, because only the elements suitable for automatic evaluation by electronic means, without any intervention or appreciation by the contracting authority, namely elements which are quantifiable so that they can be expressed in figures or percentages, may be the object of electronic auctions.

The interpretive notes also caution that proper transparent processes should be put in place to ensure fair competition when using ERAs:

It should, however, also be clarified that electronic auctions may be used in a procurement procedure for the purchase of a specific intellectual property right. It is also appropriate to recall that while contracting authorities remain free to reduce the number of candidates or tenderers as long as the auction has not yet started, no further reduction of the number of tenderers participating in the electronic auction should be allowed after the auction has started.

Article 35 of the Directive establishes ten ERA protocols:

1. Authorization to use ERAs with automatic evaluation methods, but not for design-based (e.g. design-build) public works contracts
2. Rules requiring that ERAs only be used when the requirements can be specified with precision
3. Rules requiring the disclosure of the evaluation criteria for either low-bid or high-score awards
4. Disclosure protocols requiring that the purchasing institution notify potential bidders of its intention to use an ERA in the original solicitation notice
5. Rules requiring that any pre-screening criteria identified in the solicitation document be consistently applied so that non-compliant bidders are excluded from the ERA
6. Rules requiring the disclosure of the relative weightings of the evaluation criteria, including the price calculation formula

7. Rules requiring that real-time ranking information be provided to all bidders, while prohibiting the identification of the competing bidders
8. Rules prescribing the different options available for concluding an ERA and the transparent disclosure of the applicable rules for the specific event
9. Rules requiring that contract awards be made consistent with the results of the ERA
10. Other detailed disclosure requirements for the solicitation document prescribed in Annex VI of the Directive

The UK's public procurement regulations, which are harmonized with the EU rules, also recognize the use of ERAs. In her commentary on the UK regulations, Dr. Ama Eyo describes these implementation protocols:

Effectively, they allow for a modicum of competition or “negotiation” to be used in procedures where it is not usually accepted. By their nature, electronic auctions need to be done over an electronic platform and as such are subject to the vagaries of e-procurement adoption in the UK. Electronic auctions need to be disclosed from the start (paragraph 7) and can only be used if the technical specifications have been established with sufficient precision (paragraphs 4 and 5), hence requiring a fair bit of planning.

The US Government Accountability Office (GAO) also notes increasing ERA deployment in its December 2013 report entitled “Reverse Auctions: Guidance Is Needed to Maximize Competition and Achieve Cost Savings”:

The Departments of the Army, Homeland Security, the Interior, and Veterans Affairs used reverse auctions to acquire predominantly commercial items and services—primarily for information technology products and medical equipment and supplies—although the mix of products and services varied among agencies. Most—but not all—of the auctions resulted in contracts with relatively small dollar value awards—typically \$150,000 or less—and a high rate of awards to small businesses. The four agencies steadily increased their use of reverse auctions from fiscal years 2008 through 2012, with about \$828 million in contract awards in 2012 alone.

As the GAO states, in 1997 the US Federal Acquisition Regulations were updated to remove the prohibition against auctions, thereby enabling the use of ERAs:

Prior to 1997, auctioning techniques were prohibited in the federal government under the Federal Acquisition Regulation (FAR) procedures for negotiated procurements...In 1997, the FAR Council rewrote Part 15 of the FAR to eliminate these prohibitions as part of an overall effort to make the source selection process more innovative, simplify the process, and facilitate a best value acquisition approach. Currently, while the FAR does not specifically address reverse auctions, several provisions facilitate agencies' use of them, such as allowing the use of innovative strategies and electronic commerce.

The report provides implementation statistics for four federal agencies. These statistics reflect increasing ERA adoption, providing percentage breakdowns by purchase category and department. The GAO report notes that small businesses are the primary beneficiary of the ERA program:

About 86 percent of fiscal year 2012 acquisitions using reverse auctions—16,906 of 19,688—went to small businesses, in keeping with the FAR requirement that acquisitions of supplies or services with expected values of more than \$3,000 but not over \$150,000 for small businesses, with some exceptions. These acquisitions accounted for \$661 million (80 percent) of the dollar value of all reverse auction awards.

The report also indicates that many of the ERA-based contract awards were made under existing framework agreements as second-stage competitions:

Almost half of the reverse auctions in fiscal year 2012 across the four agencies in our review—9,257 of 19,688—were conducted to place orders for products and services using existing contracts. Federal agencies can use a number of existing contract vehicles to leverage buying power and obtain lower prices, including the General Service Administration's (GSA) multiple award schedule (Schedule) program, multi-agency contracts, and government-wide acquisition contracts.

While a 1997 amendment to the federal regulations removed the barriers to implementation, the GAO report recommends a more proactive approach for the future expansion of ERAs within the US federal government:

GAO recommends that the Director of the Office of Management and Budget (OMB) take steps to amend the FAR to address agencies' use of reverse auctions and issue government-wide guidance to maximize competition and savings when using reverse auctions. OMB generally agreed with GAO's rec-

ommendations, noting that FAR coverage should be considered and that, before taking concrete steps to amend the FAR, they would discuss GAO's findings and conclusions with the FAR and Chief Acquisition Officers Councils.

In a June 2015 memorandum, the Executive Office of the President of the United States Office of Management and Budget released recommendations for expanding ERAs. The memorandum recognizes ERAs as a tool that can be used to foster innovation, increase savings and improve the acquisition process:

This past December, the Office of Federal Procurement Policy (OFPP) issued guidance directing that agencies take a series of actions to foster innovation, increase savings, and improve performance in the acquisition process. For commonly purchased goods and services, these goals will be pursued through category management and a broad set of supporting strategies to achieve better results. Reverse auctions are one of the tools agencies have used in recent years to acquire certain common needs, such as commercial off-the-shelf information technology (IT) hardware and software.

Highlighting advantages including price reductions, enhanced competition and greater access to smaller business, the memorandum encourages the expanded use of ERAs within the US federal government. The memorandum also cautions that ERAs are not a one-size-fits all tool for all procurements, and encourages vendor feedback, appropriate internal controls, and proper staff resourcing and training to conduct ERAs.

### **C. Considerations for Implementation**

The following section discusses a series of considerations that should be taken into account by purchasing institutions in deciding whether to use an ERA for any particular procurement.

In her ERA guide entitled "Introduction to e-auctions" published by the Chartered Institute of Procurement and Supply (CIPS), Senior Procurement Specialist Helen Alder notes that the adoption of ERAs traces back to the 1990s:

The use of on-line auctions (e-auctions) has increased rapidly in the last few years since they came onto the purchasing scene in the late 1990's through the development of internet-based applications. Research undertaken by CIPS in conjunction with Oracle and the University of West England - IAdapt, - estimates that, within the UK alone, during 2002 there have been at least 2500 individual e-auctions undertaken by buyers and that they have grown at least ten fold each year since their arrival. The Financial Times stated on 13/03/02 that worldwide e-auctions turnover had reached \$30bn with savings of \$6.4bn.

As Alder's explains, when “conducted properly with adequate participant training, it creates a more level playing field for suppliers through increased transparency”, but warns that senior level support is required to ensure success:

It is essential to have an e-auction champion with board backing, to drive through the initial e-auctions within a buying organisation, from which to gain experience. Without a champion, the programme may suffer from resistance from buyers and suppliers and may never progress. If a supplier suffers from a bad e-auction experience...then it is likely they may be reluctant to enter into the process again. Try to make sure, therefore, that before rolling out an e-auction programme, the process is as fair and transparent as possible, and has been approved by a pilot group including suppliers and that feedback from the pilot process is enacted on.

The guide also notes that the implementation of ERAs can produce the side-benefit of improving the overall front-end procurement process leading up to the online bidding event:

The IAdapt research found that e-auctions are almost always conducted at the end of an exhaustive purchasing process, with most buyers only inviting suppliers to bid that have passed a rigorous evaluation process. This process typically centres on a strong product or service specification, hence the result that a comprehensive specification was the most important enabler to a successful auction. e-auctions can, if conducted properly, both increase standards in the purchasing process and improve transparency, with buyers being more upfront about their requirements (the process forces buyers to be impartial, fair and really think about their requirements and procedures).

While ERA platform providers can provide full-service support for ERA events during initial test pilot phases, in the longer term Alder recommends that purchasing institutions adopt self-managed ERA programs:

There are advantages to buying the e-auction expertise and software to host e-auctions in-house. Although initially expensive and time consuming, the ability to build upon an e-auction programme year on year, introducing an expanding range of products and services provided, does have its advantages. Many large companies who have introduced an in-house e-auction programme started off outsourcing the process to test the process and prove the process internally.

In an article entitled “Electronic Reverse Auctions – The Good and the Bad”, Ernest G. Gabbards warns that ERAs will not be compensative for weak underlying procurement practices:

It is essential that we recognize that the software component of a reverse auction is merely an “enabler”, and not a different procurement methodology, i.e.: it is a tool with which to conduct the procurement process, and optimize the competition. This is a critical perspective, because any deficiencies in the underlying procurement process, such as inadequate product specifications, will result in defective proposals – just as they ultimately would in a traditional procurement process.

In fact, our watchword, based upon experience, is that success of an e-auction is as much about the quality of the procurement process as it is about the technology. I believe most e-sourcing service or tool providers would agree with this perspective.

In determining the appropriateness of an ERA, Gabbard advises that the organization should consider the product or service, as well as the market.

With respect to product or service considerations, Gabbard's factors include:

1. Are the items strategic to the purchaser?
2. Is the supplier relationship critical to the purchaser?
3. Is there an adequate specification for the items or services?
4. Is price the key determinant of success of an event?
5. Are there other factors, which might preclude success of an event?

For market analysis, Gabbard advises that organizations consider:

1. Are there sufficient suppliers?
2. Are market conditions conducive to competition?
3. Have suppliers previously participated in ERAs?
4. Will “price transparency” be accepted by suppliers?

Gabbard also identifies the following pitfalls to ERA execution:

1. Failing to analyze the market to ensure the right timing

2. Failing to identify where lower price may reduce performance
3. Failing to identify when ERAs may damage the relationship
4. Getting prices too low to allow for supplier profits
5. Assuming future ERAs will result in the saving of past ERAs
6. Failing to address pre-existing procurement process flaws
7. Failing to respect the established ERA process rules

Gabbard states that the failure to address the above-noted factors can undermine successful ERA deployment. He stresses the importance of proper preparation:

1. Preparing the organization to avoid culture shock
2. Preparing the RFP with appropriate process rules
3. Preparing the specification or statement of work
4. Preparing the suppliers and anticipating initial resistance
5. Developing realistic pricing expectations
6. Selecting the appropriate ERA format

In a 2011 paper for the University of Neuchâtel entitled “Electronic Reverse Auctions: Factors of Success”, Elhami Memeti assesses seven factors for successful ERAs:

1. Specification simplicity
2. ERA volume and lotting
3. Number of qualified suppliers
4. Competition among suppliers
5. Buyer-supplier relationship
6. Switching cost of incumbent suppliers
7. ERA preparation

With respect to specification simplicity, Memeti notes the importance of clear scoping:

Literature suggests that product or service to be auctioned in an eRA event should be clearly specified (Beall, et al., 2003; Shalev & Stee, 2010; Carter, Kaufman, Beall, Carter, Hendrick, & Petersen, 2004). Although eRAs may be used to purchase anything, they are normally recommended only for simple purchases, such as commodities (Shalev & Stee, 2010). Making clear and unambiguous specifications will make qualified suppliers correctly understand what they are bidding for and avoid misinterpretations.

Memeti's conclusions are supported by data indicating a strong correlation between specification simplicity and the probability of success. In analyzing the background research, Memeti notes little if any correlation between overall volume (amount of contract expenditure) and success, but a high correlation between lotting (bundling of number of opportunities) and successful outcomes. This suggests that ERAs can help streamline the procurement process for suppliers by cutting down on their transactional overhead and that this may be a higher motivating factor for participation than overall contract value. Memeti also finds a strong correlation between competition among suppliers and ERA success rates.

However, Memeti notes that this correlation was based on the independence of suppliers, stating that competition “was found to be one of the most important factors that impact the success of an eRA, but it was also found that is strongly correlated with number of bidders if the bidders are independent of each other.” In other words, while number of competing suppliers may increase overall ERA success rates, ERAs are unlikely to resolve pre-existing conditions of price-fixing or collusion in the particular market space.

Memeti also finds a high correlation between low switching costs to replace incumbents with new suppliers and high ERA success rates, as well as a high correlation between proper ERA planning and preparation and successful ERA deployments.

In his paper entitled “E-procurement: Multiattribute Auctions and Negotiations”, Concordia University professor G.E. Kersten characterizes typical construction tendering as a type of “sealed bid auction”:

#### 4.1 Auctions

##### 4.1.1 Sealed bid auctions

Traditionally, single-round sealed bid auctions have been used in procurement. Suppliers are given requests for quotations (RFQs) and asked to submit a bid (quotation) by a given deadline. At the deadline, the bids are opened and the best bid is selected.

Kersten then highlights the potential price advantages discovered in the 1990s in the use of ERAs:

#### 4.1.2 Reverse auctions

Reverse auctions were introduced in procurement in mid-1990s and within a few years they gained popularity. Large corporations and government departments began using them because of the promises of cutting costs and making the procurement process more impartial and transparent than face-to-face negotiations. Reverse auctions establish a competitive setting which may result in the discovery of a true market price. Field studies reported savings of between 6 and 37% on indirect materials and between 2 and 22% on direct materials. Firms reported savings of 15% to 20%; (e.g., GE ran their first reverse auction in late 1999; in 2000 they saved 16% which amounts to more \$500 million).

Kersten also identifies other benefits to ERA use, including expanded market reach, process speed and transparency:

In addition to price reduction of purchased goods, other benefits include shortening of the procurement process (from days or weeks to a few hours), increased buyer reach, the creation of new markets, and information transparency and price visibility.

However, Kersten also notes the hostile reception received by ERAs in the Canadian construction sector. While he attributes part of this hostility to a lack of supplier awareness, Kersten also maintains that the type of transactional relationship will inform the appropriateness of using an ERA:

Very positive perspectives on the use of reverse auctions in procurement have been accompanied by strong criticisms. Some studies have shown that savings are greatly overstated, supplier relationships are damaged, and distrust among incumbent suppliers is created. Some organizations and business associations consider reverse auctions antithetical to business values, compromising quality.

For example, Cypress Semiconductor Corp. announced in May 2009 that the company policy is not to participate in reverse auctions, and the Surety Association of Canada and the Canadian Construction Association strongly discourage their use.

Some of these criticisms are unfounded, reflect lack of familiarity and limited experience, and conflicting reports. Others, however, note the limitations of reverse auctions, which are suitable for transactional buyer-seller relationship focused on

obtaining best price, medium-to-short term contract, and requiring little collaboration. They are useful in purchasing when there are several or more qualified suppliers of goods which can be clearly specified and are of low-to-medium complexity.

Kersten identifies four types of purchaser-supplier relationships in the portfolio matrix for which ERAs will have varying degrees of complexity/risk and value/profit:

#### 4.3 Procurement portfolio matrix

Empirical studies of supply chain management and B2B transactions result, among others, in a portfolio of supplier relationship. This portfolio, first proposed by Kraljic (1983) postulates the following four types of buyer-supplier relationships:

1. Strategic relationship with few specialized suppliers is postulated when the required goods or services are either unique or critical for the production. This relationship takes place when switching to new suppliers is difficult and/or very costly; and
2. Leverage takes place when the required products are complex and very important for the buyer but there are many capable suppliers who can provide them;
3. Acquisition involves low costs standardized goods which do not have critical impact on production. These goods, however, are not readily available or there are not many suppliers who provide them in the required amounts; and
4. Noncritical goods are easily available from multiple sources.

Finally, in their 2008 paper entitled “Reverse Auctions: Benefits, Challenges, and Best Practices” Gus Manoochehri and Christy Lindsay provide the following useful summary of the ERA cost-benefit analysis:

For buyers, the primary benefits include reduced purchase price, increased market efficiency, higher procurement process efficiency, and access to a larger supplier base. However, application of reverse auctions can bring major risks and challenges. It can lead to deterioration of strategic supplier relationships, loss of trust, erosion of supply chain, and ultimately to higher total cost of purchased items. To effectively utilize reverse auctions, management must consider the nature of product, nature of market, and the nature of buyer-supplier relationship.

As industry recommendations clearly illustrate, proper ERA implementation requires proper planning. These recommendations indicate that ERAs can be useful in many procurement situations, but are not appropriate in all situations. This next section considers the use of ERAs within the construction industry.

#### **D. Construction Industry Considerations**

As noted above, in its 2001 Special Bulletin, the Canadian Construction Association acknowledged that ERAs are “suitable for supplies and material”. However, as evidenced in Article 4.0 of its September 2017 Industry Practices document, the CCA continues to maintain that ERAs are not appropriate for construction projects.

Notwithstanding the CCA's long-standing position, general contractors should consider whether they are compromising opportunities to be more competitive by dismissing the use of ERAs. To win more work in conventional bidding projects, general contractors could be leveraging ERAs to bring more efficiencies within their own supply chains. Failing to do so puts them at increasing risk of losing out to more technologically agile competitors. This remains a critical policy issue for the CCA to address in the interest of its own Canadian members, who now face increasing global competition under Canada's new trade treaties.

A 2003 report by CAPS Research, an initiative sponsored by the University of Arizona and Institute for Supply Management, entitled “The Role of Reverse Auctions in Strategic Sourcing”, came to the following conclusions about ERAs:

- For a growing number of buying firms, e-RAs have found an appropriate niche in their strategic sourcing toolkit, allowing them to efficiently source goods and services that are highly standardized, have sufficient spend volume, can be replicated by a reasonable number of qualified competitors, and have insignificant switching costs. In contrast, the research indicates that those suppliers of strategic items, where alliance-level supplier relationships are critical, are usually not subjected to e-RA sourcing.
- Reported payback usually can be achieved after the first few uses of the e-RA tool.
- There is little or no evidence that e-RAs are driving a significant number of suppliers into non-sustainable relationships with buyers.
- Firms who have taken a “wait-and-see” strategy indicated that they could be at a serious competitive disadvantage unless they add e-RA tools to their mix of sourcing strategies

- Buyers believe that e-RAs are no different from traditional negotiations with regard to ethical improprieties, and suppliers indicate that e-RAs, in general, are a fairer process of awarding business, because they “level the playing field” through increased transparency.
- E-RAs are here to stay and that their use will continue to grow.

One of the case studies featured in this CAPS report was that of Bechtel Corporation, the largest construction company in the US. By 2003, Bechtel had already trained 300 staff in the use of ERAs as part of its internal ERA deployment program. The results were as follows:

Bechtel calculates savings from budgets established during the initial phase of a project. The direct financial benefits achieved from reverse auction have averaged over 10 percent, with a range of 1 percent to 20 percent. Over 90 percent of Bechtel's e-RAs have achieved savings from budget.

That case study offered the following conclusions with respect to the reasons why Bechtel deployed the use of ERAs:

Bechtel performs electronic reverse auctions because they believe e-reverse auctions:

- provide competitive advantage
- provide lower market pricing
- provide lower cost for material, equipment, and services
- save negotiation time
- determines total installed cost for all bidders

The case study also highlighted the following success factors:

Bechtel considers the critical success factors are:

- Market and cost knowledge
- Clear scope with minimal uncertainty
- Selection of qualified bidders in competitive bidding environment

- Integrity, ethics, professionalism, and fairness
- Training, planning, and organization

In addition to considering downstream benefits within their own supply chains, general contractors in the Canadian construction industry should also be taking a second look at the use of ERAs as a vehicle to improve tendering practices when bidding on government contracting opportunities. Continuing to speculate on the potential risks associated with the ERAs does little to address the actual serious issues that have impacted Canadian construction industry tendering practices under the single sealed bid public opening format in recent decades.

For example, to say that the current process is working fine ignores the excessive amount of litigation created by the Ron Engineering Contract A bidding process rules over the last three and a half decades. A quick survey of the Canadian case law since Ron Engineering reveals that a disproportionate amount of government procurement tendering lawsuits across the Canadian public sector involve the construction industry. This is hardly a positive distinction for the construction industry, for Canadian public institutions, or for the Canadian taxpayer.

Furthermore, attacking ERAs does little to address the fact that conventional sealed-bid public opening practices failed to prevent price-fixing, collusion and bid-rigging in municipal tendering in Montreal or Toronto, as evidenced by the Charbonneau Commission in Quebec and resulting police investigations and convictions, and, more recently, a 2017 City of Toronto Auditor General's Report on municipal paving contracts.

In fact, the City of Toronto Auditor General identified the use of paper-based bidding and the lack of electronic records as a key obstacle in its investigation. These outdated tendering practices are also a key obstacle to proactively tracking pricing patterns for potential collusion. Concerns of bid-rigging vulnerabilities in public procurement were also raised by Canada's Auditor General and Nova Scotia's Auditor General in 2017 audits. Using ERAs would allow institutions to track pricing with far greater accuracy to detect potential collusion.

Finally, as noted in a 2018 study entitled "Electronic Reverse Auctions in Public Sector Construction Procurement: Case Study of Czech Buyers and Suppliers" T. Hanák of the Brno University of Technology states that ERAs are starting to work in public sector construction:

Qualitative research was conducted to examine the experiences, opinions and attitudes of both buyers and suppliers to e-RA through semi-structured interviews. It was concluded that when certain principles and limitations are respected, e-RA can be used successfully for the acquisition of goods, services and works related to construction by public procurement.

Hanák observes that the pressure to become more efficient is driving the construction industry towards a broader adoption of ERAs:

...practitioners mainly rely on traditional work practices and a survey of KMPG shows that the construction industry is still not taking full advantage of new technologies. This is an obstacle for performance improvement, for without adoption of new technologies it is impossible to achieve the best performance. However, due to increasing competition, companies are forced to search for economical solutions to help them perform more efficiently.

Hanák's research also notes that the low overall levels of ERA adoption for construction across the European public sector underscores significant potential for future growth:

Contemporary data reveals poor utilization of e-procurement and e-RA in construction. This has been documented e.g. for Austria or the Czech Republic, where just 0.036% of public works tenders used e-RA. At the European level, auctions are used infrequently (less than 1% in terms of number and volume of contracts awarded); in Portugal, e-RA took place in 0.7% of the tenders. The above-cited data shows that there is still a significant potential for more widespread use of e-RA.

Hanák's report underscores the importance of proper communications with the industry, and training and preparation of staff:

It is therefore necessary that buyers provide suppliers with detailed information about the rules of the game so that they can understand the process. Accuracy, clarity and open communication between the buyer and the suppliers are the basic prerequisites for the success of the auction. The readiness of the staff must be ensured not only on the part of the suppliers, but also on the part of the buyer. The user must be familiar with the options for the set-up of the auction and their impact on the process and outcome of the purchase. Training by the system operator and supervision of the preparation and implementation of several initial auctions should be a matter of course.

Hanák's study also notes that any concerns over ERAs harming business relations by driving down price should be counterbalanced with the potential to improve those relations through greater process transparency:

In connection with e-RA, it is sometimes mentioned that auctions may harm the business relationship between the supplier and the buyer, this effect is severe especially in a limited supplier base. Severe detrimental effect the relationship emerges if

a large bid price decrement over the course of e-RA is reported. However, auctions may have also a positive impact on the trust between the supplier and the buyer due to the transparency and objectivity of the process.

Towards that end, Hanák notes that process transparency and the adherence to established rules are paramount to creating trust in the ERA process:

The trust in auction can be negatively influenced by technical problems, rumors or an inadequate auction format. It is therefore important that buyers run e-RA in a fair manner, which requires clear explanation and communication of non-discriminatory auction rules and conditions to suppliers.

Hanák's study concludes that the adoption of ERAs in public procurement for construction projects requires top-down support within government institutions. As he states, the "adoption of auctions by public authorities was usually initiated by the local administration...It must be noted that the adoption of auctions in the public sector is largely a political decision, so the support of local administration (board or council/management) is inevitable."

#### **E. Implementation Steps**

The question is no longer whether ERAs can or should be used. Even the Canadian Construction Association, one of the most vocal opponents of ERAs, recognized in 2001 that ERAs are suitable for supplies and materials. Given this widespread consensus, there is no excuse to wait any longer to move within that space. The question is how much further can ERAs be expanded across all sectors, including the construction industry, to achieve improved process efficiencies and cost savings. Moving forward, as prices start going down by using ERAs, adoption rates in the Canadian public sector will surely go up.

Organizations interested in implementing ERAs should take the following seven steps:

1. Adopt legally vetted NRFP templates with ERA protocols
2. Update to ERA-friendly policies and procedures
3. Develop an industry strategy to select the right projects
4. Create a rollout plan to control internal deployment
5. Ensure appropriate internal training and awareness
6. Get initial launch support from experienced advisors
7. Develop a plan for self-sufficient long-term use

Given this clear roadmap forward, ongoing inertia with respect to the adoption of ERAs is simply bad public policy. Purchasing institutions that are serious about properly serving the public interest should proceed with a clear vision of the feasibility of this bidding option and avoid falling for the industry myths and misconceptions that have led to inertia within Canada and across other late-adopter jurisdictions.