



POLICY SERIES

No. 210 / FEBRUARY 2018

Municipalities and Performance/ Outcome Based Contracting

BY RANDY PATRICK



Ideas that change your world / www.fcpp.org



RANDY PATRICK

Dr. Randy Patrick has over a decade of experience in the municipal sector, including having been the Chief Administrative Officer for the Cities of Chestermere, AB and Thompson, MB. He worked as a senior manager in the utility sector, and in northern economic development with the Government of the Northwest Territories.

Randy obtained his Bachelor of Commerce and MBA from the University of Saskatchewan, a Master of Arts in Leadership and Training from Royal Roads University and his Doctorate in Strategic Leadership from Regent University. He also holds a National Advanced Certificate in Local Authority Administration from the University of Alberta, and a Certificate in Manitoba Administration, from the University of Manitoba.

Randy's interests include municipal government, economic development, emergency management, foresight and northern development. Randy and his wife have six children and live in the Calgary area.



203-2727 Portage Avenue, Winnipeg, Manitoba Canada R3J 0R2
Tel: 204-957-1567
Email: manitoba@fcpp.org

The Frontier Centre for Public Policy is an independent, non-profit organization that undertakes research and education in support of economic growth and social outcomes that will enhance the quality of life in our communities. Through a variety of publications and public forums, Frontier explores policy innovations required to make the prairie region a winner in the open economy. It also provides new insights into solving important issues facing our cities, towns and provinces. These include improving the performance of public expenditures in important areas such as local government, education, health and social policy. The author(s) of this study have worked independently and the opinions expressed are therefore their own, and do not necessarily reflect the opinions of the board of the Frontier Centre for Public Policy.

Copyright © 2018 by the Frontier Centre for Public Policy.

Policy Series No. 210 • Date of First Issue: February 2018.

Reproduced here with permission of the author(s). Any errors or omissions and the accuracy and completeness of this paper remain the responsibility of the author(s).

ISSN 1491-78

Ideas that change your world / www.fcpp.org

POLICY SERIES

No. 210 / FEBRUARY 2018

MUNICIPALITIES AND PERFORMANCE/ OUTCOME BASED CONTRACTING

BY RANDY PATRICK

TABLE OF CONTENTS

Executive Summary	4
The call to change	5
Procurement processes	6
Traditional contracting approach	7
Contracting and procurement specifications	8
Municipalities and performance specifications	9
Implementation of performance based contracts	10
Municipalities and performance based contracting	14
Appropriate use of performance based contracting	14
Endnotes	16
Bibliography	18

EXECUTIVE SUMMARY

Over time there have been countless calls to improve timely government processes. Change and improvement doesn't come quickly in government, if something goes wrong there can be consequences, which has resulted in slow processes to lower the risk. The contracting process causes a lot of difficulty for governments. Procurement can involve large sums of money, potentially exposing governments to legal issues. The processes that are already in place have proven they are sufficient, and it's a difficult task to change them. However, governments are beginning to change, especially when it comes to the contract process. Ultimately, every government is looking for the procurement process to be fair and transparent.

Typically, there are three to four stages of traditional procurement: design phase, tendering phase, award phase and contract management phase. Each of these phases can be lengthy, but it is important that each phase is done properly, and has followed process. Once the contract has been awarded, and the contract management phase is completed, there are certain specifications that need to be followed. Prescriptive specification, proprietary specifications and performance specifications are all used to maintain a transparent and fair procurement process. Contractors are provided with a list of specification that are required for the end result. Meanwhile, the government is overseeing that all of the specifications are being met.

Performance based process is a more collaborative process than other standard contracting methods that are typically used by governments. The government determines the desired results for the project, and the contractor works with the government to achieve the desired results. There are a number of benefits to the performance based process such as flexibility and the overall risk is transferred to the contractor tendering the work. However, performance based approaches require internal change within a government, which is not always easy.

Municipalities are not users of performance based contracting because they typically use the basic approach for consulting services when they issue requests for proposals. In the standard approach, contractors respond with the methodology they plan to use in order to reach the goals outlined by the government. But, performance based contracting is not the solution to every issue within governments. No contracting, specification or performance based, can overcome a decision made at the policy level of government.

The performance based contracting approach provides another tool for governments and municipalities to use by creating opportunity for businesses to provide value to the taxpayers by improving costs and services. It can be a win-win situation for the government, taxpayers and businesses.

THE CALL TO CHANGE

There have been calls for improving government processes, but sometimes change is slow. It is fair to say that governments are typically more risk averse than business, and traditionally, change has been at a slower pace. Why? Well if things go wrong, as I have seen from personal observation, there are often public political consequences to deal with. There is nothing more fun for a municipal bureaucrat than to be in front of a municipal council, or a legislative committee explaining, in public, what went wrong! This has resulted in a tendency to change slowly and take fewer risks, and instead, stick with the way it has always been done. By not changing processes, or by using incremental change, the risk of failure seems to be reduced, or at least you are not as likely to find yourself in front of the public being grilled, and if you are, you can always say you “followed procedure”.

The contracting process is one of those things that can cause difficulty for governments. When it comes to procurement, with large sums of money involved, it is a process where municipalities potentially have a great deal of legal exposure. It only makes sense that governments want to ensure that the processes they use avoid the possibility of legal action over the tendering process. Sometimes the reason for not changing is even simpler. The system is already in place to do purchasing, and changing that system is not always an easy task. That said, governments are changing, and that includes looking at ways to improve the contracting process.

The United States Department of Defense has found that they can achieve savings of 5 to 20 percent over the life of an asset purchased using appropriate performance based contracting approaches.¹ These approaches are starting to be used for purchasing in Canadian municipal government, but they have not received the recognition that perhaps they should.

PROCUREMENT PROCESSES

So what does a typical procurement process look like? The first thing that every government is looking for from its process is that procurement be fair and transparent. A typical example of municipal goals for procurement is that used by the city of Calgary.

Calgary sets out its standards for procurement and included are four benchmarks of compliance that must be achieved.²

- 1) The process must be fair, open and transparent;
- 2) Must provide best value for money spent;
- 3) Needs to follow laws and trade agreements;
- 4) Must be consistent with city of Calgary policy.

These requirements would form a normal procurement approach for most governments, and any type of procurement or changes to the existing process, would need to meet the same standards to be acceptable.

TRADITIONAL CONTRACTING APPROACH

Typically, there are four stages to traditional procurement. The first is the design phase, second the tendering phase, third the award stage, and fourth contract management phase.

The design stage

In the traditional procurement approach, considerable work takes place in the design phase. Consultants often need to be hired to help create the designs for the project and considerable conversation should happen with the department(s) that will have final use of the project. In the design phase, the project designs are created, contract documents are prepared, final budgets and schedules are completed and risk management is considered.³

On more complicated projects, the phase can take considerable time to be completed properly. If the designs are not of sufficient quality, they will likely increase the final cost of the project because numerous change orders may be required causing unforeseen expenses to fix any issues that are noticed during construction.⁴

The tendering stage

As part of the tendering phase, bidding opportunities are made known to the public. In order to be transparent, contractors need to be notified of the opportunity. Depending on the size of the contract, in Western Canada, there are requirements, under the New West Partnership, to ensure that the work of a certain size is publicly available for interested companies in other provinces. With some contracts, the municipality may wish to have pre-qualification criteria for bidding on the contract, which is prepared before the bid notifications are sent out. During this phase, bid security and contract security are determined.⁵

The award stage

The award stage, as the title suggests, is the stage where the contract is let. An evaluation takes place to determine the winning contractor; typically the lowest bidder, and legal agreements are entered into.

The contract management stage

After the contract has been awarded, there is an obligation to ensure that government and the contractor carry out the responsibilities under the contract. This requires working with the contractor to ensure if things get off track, appropriate action is taken to bring them back to where they should be.⁶ Some governments simply lump the contract management stage in with the award, but it is work that has to be done, and it is important work, so for this analysis, for clarity, this stage has been shown separately.

There is an issue that can and does occur in traditional government contracting, the process sometimes overtakes the objectives of the outcomes desired.⁷ In government, an employee needs to be able to show that process was followed, and what gets measured and monitored gets done.

CONTRACTING AND PROCUREMENT SPECIFICATIONS

There are three general types of specifications typically used with construction projects. Each has a legitimate usefulness, but the results from each could be very different. The first is prescriptive specifications, the second, proprietary specifications and the third, performance specifications.⁸

Prescriptive specifications

Most people are familiar with the concept of prescriptive specifications. Municipalities will typically have numerous standards they utilize that have built up over time. These may include engineering standards, national standards, quality control requirements, the products that are to be used and how the contractor will install and test the specifications.⁹ The idea behind this level of work is ensuring that the product or service provided meets a level of certainty in the final product. This approach has a tendency to move responsibility from the contractor back toward the designer, which, with a prescriptive specifications approach, is the government purchasing the asset, the owner.¹⁰ The contractor has a right to expect the specifications supplied by the owners to be correct and workable. When it's not, the owner is typically responsible for additional costs, not the contractor.¹¹

Governments often build the same type of projects over and over. For example, at the municipal level, governments have been building parks, water systems, roads, sports fields etc., and they have developed many standards that can be applied to a project. With years of work creating standards and working with them, the buyer knows exactly what they are getting.

The prescriptive method has some drawbacks, it does not encourage innovation, and it does not incentivize the contractor to go beyond that which was specified.¹²

Proprietary specifications

There are times when it makes sense to determine that a single product is required, and only that product will do. If, for example, there is already equipment installed that requires a specific extension or control system, it makes sense to purchase and install that product. Ideally, an organization will not often find itself with specific needs, but the situation does occur.¹³

Performance specifications – outcome based

Outcomes based procurement, which uses performance specifications, requires specifying 'what needs to be achieved', rather than specifying how it is to be done.¹⁴ The idea behind the use of an outcomes based approach is that it brings innovation and new expertise to projects, fostering significant change, rather than incremental change. By using contractors to find better ways to achieve goals, innovative technologies and products are utilized to meet the needs of the purchaser.

In the case of performance specifications, the contractor is not given detailed instruction on how to make things work, rather, they are provided with performance levels that discuss what the final product's capabilities must be – effectively, they are given the desired output. The contractor does not follow detailed instructions to build and develop the product from the owner, rather they consider how they can meet the performance goals and are rewarded accordingly. Unlike proprietary specifications the onus moves from the designer to the contractor who is responsible for the design, materials and the processes used in constructing the project.¹⁵

In the end, with performance specifications, the contractor is rewarded based on the actual performance achieved and how well they met the needs of the purchaser.

MUNICIPALITIES AND PERFORMANCE SPECIFICATIONS

Most municipalities share similar approaches to contracting, the use of performance-based contracting meets the objectives, like those used by Calgary, as the approach provides the buyer with better value through either improved performance, and/or lower costs than the current bidding process would obtain,¹⁶ without negatively impacting the other contracting objectives.

Performance based contracting process – a primer

There is an old joke about a fighter pilot trying to evade another fighter jet. The pilot does a tight turn pulling 8 Gs [8 times normal gravity] when she suddenly remembers the lowest bidder built the plane. Well, that might prove a bit scary for the pilot, but performance based contracting likely would help to avoid some of that risk.

A typical specification processes can be a bit confrontational. The government (the owner) asks for certain things to be done, and then acts like police officers looking for anything that does not follow the specifications. Contractors are provided with a list of specifications needed to create the end product. They are monitored to complete the project, and they are told there will be no changes without permission. This sounds like an approach that might be used for dealing with younger children.

The performance based process, on the other hand, is more collaborative in nature. The owner needs to determine desired results, but then the contractor needs to work with the owner to achieve results. The contracting department needs to spend more time working with the contractors than they might in a traditional approach. The work of the owner becomes one of managing the process over the contract life, rather than that of specifying what needs to be done and ensuring that it is.¹⁷

Performance based contracting is more relational in its approach as compared to standard contracting methods. Contracts are more general in nature and

require a level of trust and flexibility not seen with traditional approaches.¹⁸ The relationship of trust in the contractor helps to keep costs lower. The costs of monitoring every activity that the contractor engages in, simply increases costs.¹⁹ Instead of rules and standards to develop and implement a contract, risk management becomes the new standard. This requires new, or additional skills that need to be developed in a government that has, in the past, craved standardization and predictability.

Benefits and disadvantage of performance contracting

There are a number of benefits to performance contracting. As a government, you get the outcomes you define. If a traditional approach is used, without enough thought to desired outcomes, a product is produced, but there is a question about the product meeting the objectives that would have been chosen without appropriate upfront consideration.

The approach gives flexibility to the contractor to achieve the desired outcomes, which are not typical in a traditional contracting approach. The contractor is incentivized to meet the desired outcomes, rather than simply building what they have been told to create.

Performance based contracting moves risk to the contractor that would typically belong to the organization tendering work. It does not just move risk to the contractor, but the incentives for the contractor come from finding efficiencies in design, technology, process, or management that leads to higher margins for the contractor.²⁰

Changing processes is not going to be easy for a government. Internal change is required to successfully implement a performance approach. A performance approach requires changes in the purchasing process. The thinking of staff needs to change from one of controlling every step to thinking of what needs to be achieved. Staff needs to have skills in determining what needs to be measured in order to achieve the objectives.²¹ They need to develop skills that allow them to work with the contractors in a more collaborative way, which is very different from telling people what they need to do and then ensuring they actually do so.

IMPLEMENTATION OF PERFORMANCE BASED CONTRACTS

There are five steps to the performance based contracting process:²²

- 1) Need to describe the required results;
- 2) Set performance standards that can be measured;
- 3) Determine incentives for performance and sanctions (disincentives) for performance issues;
- 4) Select a supplier who can deliver;
- 5) Manage contract performance.

Need to describe the required results

The emphasis, in an output based process, changes from providing specifications, to determining what is the required end state and ensuring that it is included in the tendering documents. Working with large contracts can create complex commercial arrangements, and the level of thinking about the desired outcomes can be significant.²³ It is easy to get into discussions about what someone specifically wants to have in a project rather than what is needed in the project, and there is a difference.

If an organization needs a waiting room built into a building, what they would require from a traditional approach is a waiting room that has 'x' number of feet of space per client, and that would be the end of it. If instead, the owner simply creates an objective, lets say "space that provides a comfortable environment for a dozen people who are waiting for an average of 20 minutes for service", that space might be very different from the 'x' foot per person that would have been in a specification. It could be smaller because, instead of using a predetermined traditional space requirement with enough room for 12 chairs, the contractor may determine how to keep people comfortable for 20 minutes, and opt for a bar approach with stools and iPads, and televisions to keep people entertained, with only

one or two chairs available. The cost might be the same, but the enjoyment level of waiting clients may have improved. The idea is determining what are the desired results, rather than stating how one might achieve them.

Set performance standards that can be measured

The people who are putting together the tendering and evaluation documents tend to be busy. There may be a tendency to reduce work levels by minimizing the areas that need to be measured during the contract's life. There needs to be a reasonableness to the required measurements, but they need to ensure that the goals, the key result areas that were desired from the project results, are included in the tendering process.²⁴

Setting performance standards and indicators is not easy. International case studies indicate that setting those targets is critical to developing a successful contract because it creates better understanding between the owner and the contractor, it improves follow through, and it is critical to the next step of determining incentives.²⁵

There are four types of performance standards to consider:²⁶

- 1) The priorities set by the political process that wants to achieve something (for example reducing homelessness).
- 2) The strategic goals resulting from the political process (i.e. build a building that can provide homes for 250 homeless people)
- 3) The levels of management and service that the government expects the project to attain – Service Quality Levels (i.e. Each person would have a self-contained living space).
- 4) Annual targets (i.e. the building will have a vacancy rate of less than 5 percent and survey results from residents with 80 percent satisfied with their accommodations).

As part of the work setting standards, the government needs to understand the anticipated cost of completing the project before it goes out to tender. They may look at other comparable, similar projects to determine a cost per square foot, or use another measure that is determined works for the project. The concept behind performance contracting is to obtain better costs and outcomes. It would be impossible to determine the value of the work the contractor will be doing, without knowing what the cost should be to have the work completed, without determining approximately what the costs would have been with a traditional bidding process.

Determine incentives for performance and sanctions (disincentives) for performance issues

To ensure that the selected contractor achieves the performance levels that they were contracted to undertake, their compensation must be based, at least partially, on achieving measurable standards or requirements that were agreed upon.²⁷ The process is designed to drive the project intent, derived from the buyer's needs analysis, and failure to do so means that the owner is going to be losing something because desired outcomes were not achieved.

Select a supplier who can deliver

Contracting is about getting value for money. This requires that suppliers have the capacity to do the type of work that is being tendered. It is not only about taking the lowest cost bid, it is about having reputable contractors who can do the work they promised and create results that match or exceed the requirements, thus providing the best overall value. Given the importance of quality contractors, most of these contracts will start with a qualification process to ensure that good firms are final contenders, not just fly by night companies that have no real capacity.

Qualification round

The change from specification based contracting to performance contracting requires that, instead of having only a lowest price project winning the tendering process, the municipality must issue a request for proposals (RFP). The RFP is the starting point to determining what the contractor proposes to do and the team that they are proposing will work on the project.

To get the information, the project owners would normally create a qualification round for the project. Those contractors interested in the project are provided with the objectives, the proposed pre-development or development contracts that highlight the efficiency incentives as well as the penalties for not achieving the objectives. The owner also gives the contractor a chance in their submissions to comment on the proposed contract, with an invitation to provide potential alternatives to proposed contracts.²⁸

If a municipality is looking for innovation and value when it contracts work, the starting point is the contractor's team that will be brought to deliver the final product. Performance based contracting is not like simply tendering and accepting the lowest cost from a supplier who can deliver the product, because the desired product is still only defined as outcomes. The specifications for the build have not been created yet, and it will be the new contractor who does that work. Those outcomes will need to be changed into an actual product, a report, a building, or a road, etc. It is the contractor's team that is going to be creating the final product.

A project cannot be fully evaluated at this early stage, but those working on the project can be evaluated. It would be standard practice to evaluate the contractor's proposed development teams before the final round of submissions occurs. The individuals that are working on the project are critical to the success of the final product. The experience, and abilities of the individual team members, will be applied to the project, and knowing who they are, and how they will be applied to the project helps the purchasing team determine the likelihood the contractor will be successful in achieving or

exceeding the project's objectives. The contractor should be providing its value proposition, its general concepts for the project based on the people it employs,²⁹ and it should be identifying site-specific contingencies. The contractor provides initial designs or concepts and some details on how the contractor would bring benefits to the government.

In addition to the team that is going to be assembled for the job, the contractor itself should be evaluated. Past history with projects and financial capability to undertake the project are going to be required. In final contracts, appropriate performance guarantees will still be required to ensure the company can complete the project, or if they are unable to do so, that there are sufficient guarantees available to do the work that needs completing.

To determine if a team can successfully undertake the project, the desired outcomes must be known. If you needed heart surgery to remain alive, and the objective is to remain alive, then most people would agree that a heart surgeon is more likely to have results, the desired outcome, rather than say, a very qualified dentist.

This process is more communicative in nature than the traditional tendering process. In the first round, there has already been a chance for comments, which is not a typical process in traditional contracting. This is important because once the final tendering of the contract is completed, there is little opportunity to make changes to the contract.³⁰ The contract can be changed at this point for the final round of the tendering process.

Final selection

Contractors are selected based on how well they did in the qualification round. The government understands the charges that can be expected, and now what needs to be determined is what extra value that the contractor will bring to the work.

The evaluation may take time as each proponent may have used a different method of bringing process. By understanding the cost of the project without the value improvements, the team working on the purchase can determine the savings from the process, or determine how the value the contractor

promised will be obtained. The finalists from the preliminary round would be asked to work with the government to create a project that not only has function, but is aesthetically acceptable, keeping in mind budgets and objectives.³¹ They would need to provide a price for the work that has been discussed.

The winning contractor is awarded the contract and it moves to the development stage. The designs are completed, based on the commitments made in the earlier phases, and the contractor agrees to take on the risk of completion of the project.

There will likely be some conversation with the winning contractor, finalizing design and the value added components that come with the project. After the contract is awarded, the work for the owner becomes that of monitoring.

Managing contract performance

The efforts involved in the monitoring of performance based contracts can be considerable.³² The contract requires monitoring, to ensure that which was promised by the contractor has been delivered, and the key result areas are what were desired, and only through properly monitoring contract performance can it be determined how successful the contractor was.

There are a number of different ways that a contract can be monitored. The first is with the contractor and the owner getting together to discuss what is occurring, and how well the targets are being met, or not met. The second method of evaluation is to simply audit the progress, based upon the agreed goals. A third approach is to have the contractor provide feedback on goal progress at mutually agreed times, and the fourth method is to have a person or organization that is external to the contract complete the review.³³

There are differences between traditional procurement and procurement that is performance based. In many ways, phases are similar between the two, but there are two noticeable differences. The first has been discussed at some length, and that is the switch from the government supplying detailed specifications to providing desired outcomes. Although they can be forgotten, or possibly

just diminished in the specification approach, there is still a need to understand what the project is supposed to achieve in order to know when you have been successful contracting out the project.

The idea behind understanding the desired output means that the government must give more thought to what it wishes to achieve before it contracts the work. On those complex projects, the amount of work required for specifications drops, resulting in less time and fewer resources required on the front end of the project. There is; however, a transfer of time and resources to evaluating and monitoring contracts that may not have existed in the past.³⁴

The second difference, although a reduction in time may look like a cost savings, the amount of time required to monitor and evaluate a project may go up substantially. With the contractor offering increased value through innovative and specialized

techniques, the team monitoring outcomes needs to have a greater skill set that they may have in the past. If a project, using a simple example like improving energy usage in a building by improved lighting and long-lasting bulbs, is to be evaluated appropriately, that monitoring would need to go on for some time to ensure that the anticipated energy savings are accrued. Part of the savings are to come through long life bulbs, but assuming that they will last with no problems is not necessarily reasonable. There should be, at a minimum, some checks over the first few months of the operations to ensure that the bulbs are not burning out well before they should, or a warranty period, where if bulbs are failing, they can be replaced at no cost to the government. In the case of ongoing operation and maintenance contracts, the monitoring may go on for years.

MUNICIPALITIES AND PERFORMANCE BASED CONTRACTING

Although municipalities are not typically users of performance based contracting for major assets, they often use the basic approach for consulting services when they issue requests for proposals (RFPs). In that process, typically there are goals to achieve and the contractor responds with the methodology they would use to meet the goals. There is a change in the approach and a municipality

needs to be sure that their staff is able to adjust as staff changes from a more adversarial approach to more of a partnership approach to contracting. A municipality or other level of government should proceed cautiously to the performance contracting approach, but there are significant benefits in costs savings and innovation that make the approach one that can be used more frequently than it is currently.

APPROPRIATE USE OF PERFORMANCE BASED CONTRACTING

Performance based contracting can be used for a number of different types of procurement. It can be useful for procurement like contracting consulting, educational services, projects that require innovation and creativity and for contracts where the contractor owns or operates a facility. What they have in common is finding opportunities where outcomes are critical. There should be a warning, performance based contracting is a tool, it does not fit all situations, sometimes, a specified approach is the right answer. For standard contracts, like a local soccer field, there is little reason for a government to use a performance based tendering approach. However, if the project is a complicated project, like a building where there is a desire to have state of the art energy savings, some, or all, of that building should be considered for an output based specifications approach, which will bring creativity, best value and innovation to the project.

There are three areas of cost that an organization using performance contracting must consider. Those costs occur during the negotiating stage of the contract development, in the understand/managing of risk portion of the contracting, and if necessary, the enforcement of contracts. If those costs are

thought to be too high, the government should look at using traditional contracting approaches to undertake the project.³⁵

Recently, the federal government put a request for qualifications for a modernization of the Ottawa district heating and cooling system used in 80 buildings. The government is looking for three companies to submit proposals for the modernization of the system in order to reduce greenhouse gas. This project asks that the three approved qualified candidates will be responsible for short-term financing of the construction and the operating/maintaining the assets over the long-term.³⁶ This type of project, if done properly, with clear objectives around greenhouse gas emissions, costs, and comfort levels in the building, is an ideal project for performance based contracting. The contractor designs, builds and maintains the system, and the majority of the risk should reside with the contractor. There should be savings that can be shared between the government and the contractor, assuming the contractor attains or exceeds the new objectives. With the long-term objectives of having the contractor operate and maintain the system, the government will, for many years to come, need

to monitor the effectiveness of the system against the original objectives.

Performance based contracting is certainly not the solution to every issue that a government has. No contracting, either specification or performance based, will overcome a decision that was made at the policy level to do something that demands poor objectives. The problems that a policy creates will be created under either method of contracting. The bigger picture strategic direction, still needs to be appropriate to get results from either contracting approach.

A performance based contracting approach provides another tool for a municipality or other governments to use. It creates opportunities for businesses to use creativity to provide value for taxpayers, improving services or costs. It can be a win-win-win situation for government, businesses and the public.

Given a relatively new tool, municipal governments need to consider how it can or should be employed, and ensure that their own processes are able to manage the changes that are going to be required within the government to improve purchasing results.

ENDNOTES

1. Centre For Public Impact. Using Performance-based logistics (PBL) for US defence contracts. *Centre for Public Impact*. [Online] 04 1, 2016. [Cited: 11 25, 2017.] <https://www.centreforpublicimpact.org/case-study/performance-based-logistics/>.
2. City of Calgary. Administrative Policy: Procurement Guiding Principles. *City of Calgary*. [Online] 04 01, 2010. [Cited: 11 14, 2017.] <http://www.calgary.ca/CA/cmo/Pages/Financial-Administration-Policies.aspx>. Pg. 3.
3. Government of British Columbia. *Capital Asset Management Framework*. s.l.: Government of British Columbia, 2002. Pg. 95.
4. *Ibid.* Pg. 95-96.
5. *Ibid.* Pg. 99-100.
6. Government of British Columbia. *Capital Asset Management Framework*. s.l.: Government of British Columbia, 2002. Pg. 89.
7. ICMA. The Outcome-Focused RFP. ICMA.org. [Online] 08 2016. [Cited: 11 16, 2017.] <https://icma.org/articles/outcome-focused-rfp>.
8. Archtoolbox. Types of Construction Specifications. *Archtoolbox*. [Online] [Cited: 11 08, 2017.] <https://www.archtoolbox.com/representation/specifications/types-of-construction-specifications.html>.
9. *Ibid.*
10. *Ibid.*
11. Organization for Economic Co-operation and Development. *Performance Contracting: Lessons From Performance Contracting Case Studies, A Framework for Public Sector Performance Contracting*. Paris: OECD, 1999.
12. Powers, Kathy. *Performance Based Service Contracting*. [Online] Facility Engineering Associates, 2012. <https://www.feapc.com/wp-content/uploads/2012/09/Performance-Based-Contracting.pdf>. Pg. 7.
13. Archtoolbox. *Types of Construction Specifications*. *Archtoolbox*. [Online] [Cited: 11 08, 2017.] <https://www.archtoolbox.com/representation/specifications/types-of-construction-specifications.html>.
14. Healthcare Supply Chain Network. Healthcare Supply Chain Network (HSCN) Innovation Procurement, Outcome Based Specification Guide. [Online] 07 15, 2015. [Cited: 11 09, 2017.] <http://www.hscn.org/Data/Sites/1/resources/innovationprocurement/hscn-innovation-procurement-outcome-based-specification-guide-new-logo.pdf>. Pg. 3.
15. Stark, J Norman. *Construction Contracts-Design vs. Performance Specifications*. *LinkedIn*. [Online] 07 03, 2017. [Cited: 11 14, 2017.] <https://www.linkedin.com/pulse/construction-contracts-design-vs-performance-j-norman-stark/>.
16. CIPS and NIGP. Public Procurement Practice: Performance Based Contracting. *NIGP - The Institute for Public Procurement*. [Online] 2012. [Cited: 11 08, 2017.] <https://www.nigp.org/docs/default-source/New-Site/global-best-practices/performancebased.pdf?sfvrsn=2>. Pg. 3.
17. Turley, Laura, Silva, Mariana Hug and Benson, Scarlett. *Performance-based Specifications: Exploring when they work and why*. Winnipeg: International Institute for Sustainable Development, 2014. Pg. 11.
18. Organization for Economic Co-operation and Development. *Performance Contracting: Lessons From Performance Contracting Case Studies, A Framework for Public Sector Performance Contracting*. Paris: OECD, 1999. Pg. 9.

19. *Ibid.* Pg. 19.
20. Powers, Kathy. *Performance Based Service Contracting*. [Online] Facility Engineering Associates, 2012. <https://www.feapc.com/wp-content/uploads/2012/09/Performance-Based-Contracting.pdf>. Pg. 10.
21. *Ibid.* Pg. 1.
22. CIPS and NIGP. Public Procurement Practice: Performance Based Contracting. *NIGP - The Institute for Public Procurement*. [Online] 2012. [Cited: 11 08, 2017.] <https://www.nigp.org/docs/default-source/New-Site/global-best-practices/performancebased.pdf?sfvrsn=2>. Pg. 1-3.
23. Achieving Balance. *Performance Based Contracting (PBC) Blog*. [Online] 08 19, 2017. [Cited: 11 15, 2017.] <https://performancebasedcontracting.com/2017/08/19/achieving-balance/>.
24. *Ibid.*
25. Organization for Economic Co-operation and Development. *Performance Contracting: Lessons From Performance Contracting Case Studies, A Framework for Public Sector Performance Contracting*. Paris: OECD, 1999. Pg. 23.
26. *Ibid.* Pg. 28-29.
27. CIPS and NIGP. Public Procurement Practice: Performance Based Contracting. *NIGP - The Institute for Public Procurement*. [Online] 2012. [Cited: 11 08, 2017.] <https://www.nigp.org/docs/default-source/New-Site/global-best-practices/performancebased.pdf?sfvrsn=2>.
28. ICMA. The Outcome-Focused RFP. ICMA.org. [Online] 08 2016. [Cited: 11 16, 2017.] <https://icma.org/articles/outcome-focused-rfp>.
29. ICMA. The Outcome-Focused RFP. ICMA.org. [Online] 08 2016. [Cited: 11 16, 2017.] <https://icma.org/articles/outcome-focused-rfp>.
30. *Ibid.*
31. ICMA. The Outcome-Focused RFP. ICMA.org. [Online] 08 2016. [Cited: 11 16, 2017.] <https://icma.org/articles/outcome-focused-rfp>.
32. Turley, Laura, Silva, Mariana Hug and Benson , Scarlett. *Performance-based Specifications: Exploring when they work and why*. Winnipeg: International Institute for Sustainable Development, 2014.
33. Organization for Economic Co-operation and Development. *Performance Contracting: Lessons From Performance Contracting Case Studies, A Framework for Public Sector Performance Contracting*. Paris: OECD, 1999. Pg. 39.
34. Turley, Laura, Silva, Mariana Hug and Benson , Scarlett. *Performance-based Specifications: Exploring when they work and why*. Winnipeg: International Institute for Sustainable Development, 2014. Pg. 11.
35. Organization for Economic Co-operation and Development. *Performance Contracting: Lessons From Performance Contracting Case Studies, A Framework for Public Sector Performance Contracting*. Paris: OECD, 1999. Pg. 19.
36. Public Services and Procurement Canada. Government of Canada Launches Procurement Process for Energy Services Acquisition Program. *Newswire.ca*. [Online] 08 31, 2017. [Cited: 11 14, 2017.] <http://www.newswire.ca/news-releases/government-of-canada-launches-procurement-process-for-energy-services-acquisition-program-642392473.html>.

BIBLIOGRAPHY

- Achieving Balance. Performance Based Contracting (PBC) Blog. [Online] 08 19, 2017. [Cited: 11 15, 2017.] <https://performancebasedcontracting.com/2017/08/19/achieving-balance/>.
- Archtoolbox. Types of Construction Specifications. Archtoolbox . [Online] [Cited: 11 08, 2017.] <https://www.archtoolbox.com/representation/specifications/types-of-construction-specifications.html>.
- Centre For Public Impact. Using Performance-based logistics (PBL) for US defence contracts. Centre for Public Impact. [Online] 04 1, 2016. [Cited: 11 25, 2017.] <https://www.centreforpublicimpact.org/case-study/performance-based-logistics/>.
- CIPS and NIGP. Public Procurement Practice: Performance Based Contracting. NIGP - The Institute for Public Procurement. [Online] 2012. [Cited: 11 08, 2017.] <https://www.nigp.org/docs/default-source/New-Site/global-best-practices/performancebased.pdf?sfvrsn=2>.
- City of Calgary. Administrative Policy: Procurement Guiding Principles. City of Calgary. [Online] 04 01, 2010. [Cited: 11 14, 2017.] <http://www.calgary.ca/CA/cmo/Pages/Financial-Administration-Policies.aspx>.
- Government of British Columbia. Capital Asset Management Framework. s.l.: Government of British Columbia, 2002.
- Healthcare Supply Chain Network. *Healthcare Supply Chain Network (HSCN) Innovation Procurement, Outcome Based Specification Guide*. [Online] 07 15, 2015. [Cited: 11 09, 2017.] <http://www.hscn.org/Data/Sites/1/resources/innovationprocurement/hscn-innovation-procurement-outcome-based-specification-guide-new-logo.pdf>.
- ICMA. The Outcome-Focused RFP. *ICMA.org*. [Online] 08 2016. [Cited: 11 16, 2017.] <https://icma.org/articles/outcome-focused-rfp>.
- Organization for Economic Co-operation and Development. *Performance Contracting: Lessons From Performance Contracting Case Studies, A Framework for Public Sector Performance Contracting*. Paris: OECD, 1999.
- Powers, Kathy. *Performance Based Service Contracting*. [Online] Facility Engineering Associates, 2012. <https://www.feapc.com/wp-content/uploads/2012/09/Performance-Based-Contracting.pdf>.
- Public Services and Procurement Canada. Government of Canada Launches Procurement Process for Energy Services Acquisition Program. *Newswire.ca*. [Online] 08 31, 2017. [Cited: 11 14, 2017.] <http://www.newswire.ca/news-releases/government-of-canada-launches-procurement-process-for-energy-services-acquisition-program-642392473.html>.
- Stark, J Norman. Construction Contracts-Design vs. Performance Specifications. *LinkedIn*. [Online] 07 03, 2017. [Cited: 11 14, 2017.] <https://www.linkedin.com/pulse/construction-contracts-design-vs-performance-j-norman-stark/>.
- Turley, Laura, Silva, Mariana Hug and Benson, Scarlett. *Performance-based Specifications: Exploring when they work and why*. Winnipeg: International Institute for Sustainable Development, 2014.

