

Article

Assessing the Degree of Sustainability Integration in Canadian Public Sector Procurement

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Abstract: The purpose of this study was to identify the current state of sustainability integration into Canadian government procurement and make recommendations on how to deepen current integration in order to accelerate the advancement of existing sustainability goals. We reviewed 50 publicly available Requests for Proposals (RFPs) issued between 2016 and 2019 and evaluated the significance of sustainability integration and the expanse of considerations using two measurement schemes. Our analysis suggests that sustainability integration into RFPs is currently superficial with limited integration into the evaluation process. We also found that the integration of sustainability was narrow with significant gaps in the breadth of environmental and social impact areas that were considered. As such, we provide insights and recommendations that will enable governments to accelerate the advancement of sustainability through the use of procurement.

Keywords: Canada; procurement; public sector; supply chain; sustainability

1. Introduction and Background

Canadian society and governments have recognized the urgency of global environmental and social challenges and are working to address them. The Federal Government has signed the Paris Agreement, committing to reducing Canada's emissions by 30% below the 2005 levels by 2030 [1]. To support this initiative, there have been numerous efforts ranging from putting a price on carbon, to investments in infrastructure and renewable energy [2], as well as the creation of the Centre for Greening Government within the federal government's Treasury Board Secretariat, and the development of a greening government strategy. Most recently, Prime Minister Justin Trudeau announced a ban on harmful single-use plastics by as early as 2021 [3]. From a social standpoint, Canada and 192 other UN member states adopted the 2030 Agenda for Sustainable Development in 2015 [4] and Canada has invested heavily in a breadth of efforts, including Canada's first Poverty Reduction Strategy [5]. Despite these efforts, our progress is limited. Canada is projected to fall short on its greenhouse gas (GHG) reduction promise by 78 million tonnes [6] and the Sustainable Development Goals (SDGs) are described as a work in progress with 3 million Canadians struggling to satisfy their basic needs [7]. Given the critical and urgent need to advance sustainability, meaningful progress requires that we leverage all our available instruments. Sustainable public procurement, defined as the procurement of goods and services by government entities that take into consideration social, economic, and environmental aspects [8], is one severely underutilized and highly impactful mechanism.

Prior research found that while a wide range of initiatives were in place to address the challenges related to sustainable development, they remained patchy in nature when it came to differences in sustainability aspects and across local authorities, as well as budgetary implications and priorities [9]. Relatedly, a combination of individual and organizational factors, and adaptation processes for small groups, within and external to the organization, seem to constitute barriers to the advancement towards

sustainable procurement [10]. However, organizational leadership style has a positive impact on the likelihood of sustainable procurement practices [11], although there can still be insufficient support for sustainability tools in a trade-off situation [12] and a lack of influence by procurement professionals on the implementation of sustainability [13]. From a legislative framework perspective, green public procurement (GPP) [14] appears to be hindered by the legal institutes already in place [15].

The evaluation of GPP via an analysis of calls for tenders and assessment of criteria development process showed positive and encouraging results [16,17] but also some weaknesses, such as a limited impact perspective and a lack of clear definition of sustainability objectives [17]; a lack of objective metrics to assess social sustainability, with some variance across countries [18]. Another study documented that while there is a focus on GPP in municipalities (in Norway), the requirements are far from being implemented and there are differences across various municipality sizes [19]. Finally, municipal councilors seem to consider—and use—sustainability as a “political theme” mainly to seek visibility and electoral support, and do not interact much with procurement managers [20].

From a strategic perspective, in utilizing purchasing as a social movement, sustainable public procurement works to use capitalism’s fundamental principle against itself, replacing individual self-interest with broad based sustainability concerns [21]. From a practical perspective, public sector purchasing makes up 13.3% of Canada’s gross domestic product [22] and uses existing buying power to drive established policy objectives, making it an important point of leverage, a relatively low-cost tool, and a stewardship mechanism for taxpayer dollars.

“Collective ethical procurement and purchasing policies have a long and distinguished history in practice” [21]. On the sustainability front in Canada, green procurement was first identified as a priority over 25 years ago when the federal government provided “instructions to develop a government-wide approach to green procurement in 1994” [23]. A recommitment to “develop and implement a government-wide green procurement policy by 2006” [23] was established in the 2004 Speech from the Throne. Most recently, the government made a commitment to reduce the government’s own emissions to 40% below 2005 levels by 2030 and established the Centre for Greening of Government at the Treasury Board that is responsible for advancing this goal, including actions related to procurement [22].

Given the breadth of sustainability commitments, gaps in sustainability outcomes, the mandate on green procurement, and a belief that procurement can be a meaningful lever for change, we identified a need to better understand whether there was (1) a gap in sustainability outcomes achieved through procurement or (2) limited integration of sustainability into public sector procurement. As such, this research is designed to assess the state of sustainability integration into Canadian public sector purchasing and in the case of opportunities, to provide recommendations on how to deepen integration in order accelerate sustainability outcomes. We evaluate the significance of sustainability integration and the expanse of environmental and social considerations.

2. Procurement Process

The public procurement process is designed to get the best value for Canadians while enhancing access, competition, and fairness [24]. Supporting these goals is a complex legal framework creating “two contracts: (1) the bidding contract which sets out the “rules” that apply up until the completion of the competitive procurement process; and (2) the substantive contract entered into between the procuring authority and the successful bidders” [25]. In addition, a breadth of trade agreements and government guidelines enhance this legal framework.

Given this, Requests for Proposals (RFPs) issued by contracting organizations have evolved to become dense documents, often over 100 pages in length, covering the detailed requirements and rules that apply to the bid. RFPs include sections and language on how work should be carried out, service/product requirements, and overall expectations including requirements for the submission of progress reports.

In the RFPs, an evaluation section outlines the process by which the winning bid will be selected. Within that section, the majority of RFPs typically provide a series of weights or points that are allocated to areas of importance. This serves to provide a clear and fair basis for suppliers and ensures the procuring organization focuses its selection on the pre-identified priority areas. Weights are generally allocated towards technical and functional requirements, which include minimum service/product requirements and how the work will be carried out, pricing, expertise, as well as company background and references. Some of the reviewed RFPs have very detailed weight categories, with up to nine different categories. In a smaller portion of RFPs, while there is clarity around the categories of importance for evaluation, there is no allocation of weights to these categories. Evaluations are made on overall quality of written proposals that include the pre-identified categories of importance ranging functional and technical requirements to pricing.

3. Methodology

We reviewed 50 publicly available Requests for Proposals (RFPs) with an estimated value of over \$1M issued between 2016 and 2019. In order to establish a meaningful understanding of the degree of sustainability integration in the public sector, we ensured both jurisdictional and geographic representation. Within the analyzed RFPs, 58% were from municipal governments, 20% from provincial governments, and 22% from the federal government. In terms of geography, we secured RFPs from 9 of the 13 provinces and territories (excluded were Prince Edward Island, Newfoundland, Nunavut, and the Northwest Territories due to the lack of available large-scale public procurement opportunities in the focus categories discussed below).

In selecting focus areas, we considered categories that were both high dollar volume from a federal government spending perspective and high impact using carbon emissions as a lens. With insights from the Centre for Greening Government, we selected the construction, information technology (IT), and large services categories. These are the top three spend categories for the federal government and have significant sustainability impacts. The federal government spends over \$16 billion annually on these categories, with close to \$9 billion on construction-related purchasing [26]. We used RFPs related to both building and maintenance/inspection for the construction category, while IT included any electronic-related product and service. The large services category was comprised of varying services, including grounds keeping, janitorial, and food services.

We identified that a material influence in the evaluation criteria and coverage of the breadth of material sustainability impacts would be required to effectively leverage procurement to advance sustainability-related policy objectives. As such, we designed and adopted two measurement schemes to analyze the extent to which sustainability was integrated into government purchasing. These measurement schemes allowed for an assessment of both the significance and expanse of environmental and social considerations.

It is important to note that although sustainability includes economic considerations, our analysis was focused on environmental and social pillars, given outcome gaps in these areas. Early in our research, we noticed that although sustainability language was found within many RFPs, it was often general, narrow, absent from the evaluation system, and lacking in mechanisms for accountability. These insights led to the design of the measurement schemes outlined below.

3.1. Significance of Sustainability Integration

In order to assess the significance of sustainability integration, we wanted to determine the degree to which sustainability was a consideration within the bidder selection process. As such, we looked at both inclusion and weighting of sustainability considerations. We designed a measurement scheme (see Figure 1) with four distinct levels, ranging from inclusion of any environmental or social considerations to inclusion of such considerations as independent elements within the evaluation criteria combined with clarity around mechanisms for accountability to the criteria. It is important to note that 70% of the RFPs we reviewed had weights allocated to areas of importance within the

evaluation section, while 30% of RFPs outlined areas of importance but had no allocation of weights to specific areas.



Figure 1. Model of sustainability integration.

The bottom tier (Tier 1) encompasses RFPs that include any basic language relating to environmental and social sustainability considerations. This can range from expectations such as compliance with existing regulatory requirements (e.g., fair hiring practices for people with disabilities as per the Accessibility for Ontarians with Disabilities Act (AODA) or reference to existing organizational policies, to language that is assumed to be part of the functional requirements of the task (e.g., disposal and cleanup of a construction site once work has been completed). Given the sparseness of sustainability language within the RFPs and that even some mention of regulatory requirements can lead to minimal awareness of sustainability concerns, we elected to include mention of sustainability-related regulatory requirements in Tier 1.

Tier 2 includes all RFPs where the sustainability considerations are included directly into the evaluation system in any category. Categories of inclusion range from technical, health, and safety, as well as value add, to an independent sustainability category. It is important to note that the significance of sustainability considerations continues to be minimal within this tier.

For greater perspective, an example of sustainability inclusion is provided in Figure 2. This municipal RFP for IT print services limits sustainability consideration to environmentally-friendly disposal worth 2 points. While this RFP would be categorized into the second tier, a weighting of 2% is negligible. In addition, there are no considerations of materials, carbon impacts, or energy on the environmental side, nor any social considerations, making sustainability integration superficial and narrow, to say the least.

EVALUATION CRITERIA	AVAILABLE POINTS
STAGE 1 – Evaluation of Mandatory Requirements	Pass/Fail
Compliance with Mandatory Submission Requirements (Section 5.2)	Pass/Fail
STAGE 2A – Detailed Evaluation as per article 5.3 – Proposal Content (Appendix G)	40 points
Subsection 1 - Proponent Profile	1
Subsection 2 - Experience and Qualification	6
Subsection 3 - Proposed Solution (33)	
Account Exec Role & Proposed Staff	2
Zero-Interaction Orders	3
Consumable Returns	2
Help Desk Staffing & Ticket Status	3
On-Site Break Fix, Additional Service Work Performed	5
Parts Parade/Repeated Service Calls	5
Call Close Out	1
Service Reporting	4
Master List	2
Environmentally Friendly Disposal	2
System Software & Reporting	2
Simple Billing & Reports	2
STAGE 3 – Cost (Proponents must meet or exceed a minimum threshold of 75% in Stage 2 in order to be further considered for cost.)	
Proponent's Fees (Total Proposed Price)	
Scores will be calculated as follows: Lowest Total Proposal Price receives 60 points, and remaining proposals are assigned points based on the following formula: (Lowest price divided by proponent price) x 60	60
TOTAL SCORE (Stage + Stage 3)	100 points

Figure 2. Weighted evaluation for a municipal IT Requests for Proposals (RFP) where sustainability is a component of the proposed solution category.

As we move into Tier 3, we start to see mechanisms that begin to more meaningfully factor sustainability into the evaluation process, either through points or through the written requirements. The RFPs included in this tier are those where sustainability is being considered as a separate component within the evaluation. For example, a municipal IT RFP, depicted in Figure 3, for the supply of smartphones in the cellular category has separate point criteria for sustainability weighed at 5 points. Under the evaluation categories, they have listed specific impact areas to evaluate.

g.	Sustainability (5%)
i.	Describe how your company will work with and support the [redacted] meeting their sustainability targets. Detail how this would apply to any device or accessory – cradle to grave scenarios.
ii.	Describe what policies, programs, memberships or certifications your company has in place to manage its environmental impact and to become more sustainable.
iii.	Describe how your company works to reduce its greenhouse gas (GHG) emissions.
iv.	Describe how your company works to reduce waste in its daily operations.
v.	Describe how your company works to reduce its water consumption in its daily operations.
vi.	Describe how your company works to be more energy efficient.

Figure 3. Weighted evaluation for a municipal IT RFP where sustainability is a separate category.

It is important to note that significant gaps still exist. Firstly, the weighting of 5% continues to make sustainability efforts inconsequential. Secondly, while the considerations listed are important, the requests pertain to the producer of goods and do not specifically address material impacts nor the use phase of the products. Material impact areas for cellular devices are outlined by the Electronic Product Environmental Assessment Tool (EPEAT), and include energy use, use of chemicals and plastic materials, and end of life management [27]. Finally, the broad nature of information requested does not enable meaningful comparison across suppliers. Thus, the integration of sustainability within this RFP continues to be superficial in nature despite having a separate sustainability category.

The fourth and most rigorous tier includes RFPs that have sustainability evaluated separately as a category with a minimum of 10% weighting and include language discussing accountability to the sustainable criteria. We elected such weighting based on the conventional threshold for materiality (based on the interpretation of accounting and auditing guidelines issued by authoritative bodies such as the Chartered Professional Accountants of Canada or the United States Securities and Exchange Commission), as anything lower than 10% would have limited impact on the selected bidder. We opted to include language discussing accountability, given the many unrealized commitments in sustainability, examples of which include recycling plants with residual rates (% of material not recycled) ranging from 20–40% [28] and frequent mislabeling of foods as organic or sustainable [29–31]. Without such language, we determined that integration within the RFP could still result in minimal implementation efforts. Language around accountability could range from requirements for third party certificates to demonstrate adherence to identified requirements, such as end of life materials management, to requests for documentation to demonstrate possible commitments to living wages or diversity.

3.2. Expanse of Sustainability Integration

Sustainability is complex and advancing towards it involves meaningfully addressing diverse areas of impact ranging from environmental considerations such as greenhouse gas emissions, waste, and recycled content to social considerations such as economic participation, health impacts, and inequalities. From an industry perspective, making meaningful progress in the majority of businesses will require addressing a number of material impact areas that will differ across industries. For example, in order to truly advance sustainability, the construction industry will need to consider such impacts as embedded carbon in materials, end of life management for waste, and economic sustainability of workers. In the IT industry, meaningful consideration will need to be given to carbon emissions from product usage, recycled content within products, and to worker conditions throughout the supply chain, in particular in the mineral extraction phase due to conflict minerals. Although in some business areas, like consulting within the large services category, a narrower focus on social considerations may be sufficient, our assessment led us to believe that at a macro level, consideration of a breadth of material impacts was key to demonstrating a comprehensive approach to sustainability and enabling greater comparability across bidders. In order to understand the breadth, we assessed the number of specific impact areas being considered within the environmental and social categories.

Our scheme for assessing the expanse of sustainability integration, outlined in Figure 4, evaluates RFPs based on the extent to which both social and environmental criteria are addressed. The bottom tier includes those RFPs that include any base-level sustainability language from either social or environmental areas. An example of a narrow RFP is one from the IT category in a municipality (see Figure 5). The RFP placed emphasis on reducing impacts associated with travel and shipping yet lacked consideration of critical impact areas ranging from emissions within the product life cycle, energy usage, and inclusion of recycled content, to living wage, and use of conflict minerals. This demonstrates a narrow focus on sustainability and would limit the potential impact as well as distort the ability to meaningfully assess and compare across vendors.

The second tier consists of RFPs that include considerations in a minimum of three separate impact areas covering both the environmental and social elements. This would include language around environmental and social impact areas, ranging from plastics reduction to workplace diversity. To reach the third tier, an RFP must have established clear and specific considerations in a minimum of five environmental and social impact areas. To be scored in this tier, considerations would need to go beyond general statements or links to policies and include distinct areas of attention. For example, a general statement outlining a preference for environmental or sustainable products or services would not be considered specific, while a statement outlining a preference for biodegradable or Forest Stewardship Council certified products would be considered specific.

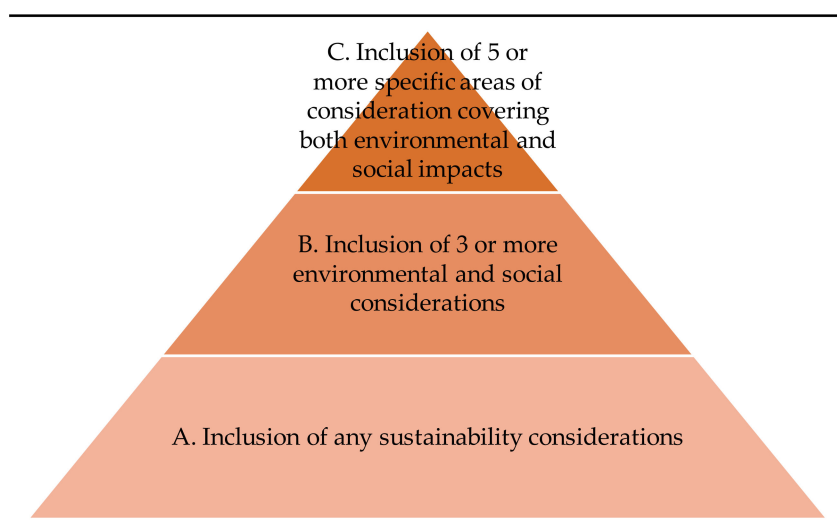


Figure 4. Model for assessing the expanse of sustainability integration.

D8.1 Environmental Properties Behaviour Recommended

D8.1.1 Use of Teleconference and Public Transit

Project Authority and the Contractor are encouraged to

- use video and/or teleconferencing where possible to cut down unnecessary travel.
- use public transit where feasible.

D8.1.2 Shipping and Packaging

The Contractor is encourage to:

- Reduce packaging volume and weight for any goods shipped to [REDACTED]
- Use reusable shipping materials, including reusable plastic, crates and corrugated boxes.

Figure 5. Environmental considerations for a municipal IT RFP.

3.3. Application of the Measurement Instruments

We identified a need to understand the degree of sustainability integration in existing public sector RFPs and conceptualized the research based on discussions and prior research [9–20]. We specifically and inductively considered a number of factors, including potential to reflect ultimate integration of sustainability, bearing on the supplier selection, relevance across categories being considered, coverage of efforts being undertaken, and potential value for future evaluations.

Given these considerations and review of an initial set of RFPs, two of the authors created a table documenting integration into that set. One of these two authors completed with information, and in collaboration devised the measurement schemes outlined above, which were discussed with the third author. Once the measurement scheme was agreed upon, one of the authors initially and independently reviewed, assessed, and coded each RFP. The other authors subsequently reviewed them and collectively validated to ensure high inter-coding accuracy and reliability.

4. Key Findings

In the section below we outline the key findings of the analysis. It is important to note that the findings were relatively consistent across jurisdictions assessed. As such, no one level of government, nor one category, stood out as having deeper and broader integration of sustainability with the associated RFPs.

4.1. Finding 1: Sustainability Integration into RFPs is Currently Superficial with Limited Integration into the Evaluation Process

The level of inclusion of sustainability in the evaluation process was mostly superficial (see Figure 6). Environmental and or social considerations were often a minor component or omitted entirely within the process. A total of 78% of the RFPs reviewed fell under the first tier and 22% of the RFPs had absolutely no mention of sustainability whatsoever.

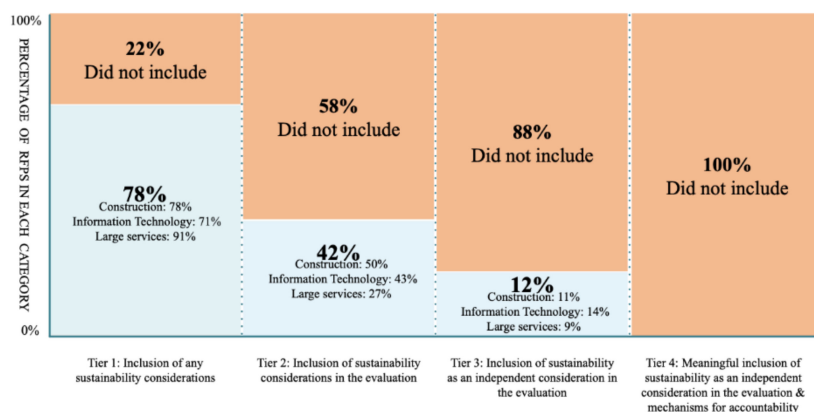


Figure 6. Inclusion of sustainability in the evaluation process.

Only 42% of RFPs reached the second tier, somehow integrating sustainability into any component within the evaluation. Again, it is important to note that this tier is still superficial, as integration into the evaluation could take any minimal form. For example, as shown in the municipal IT RFP in Figure 7, sustainability here is focused solely on supplier diversity and integrated in one checklist requiring completion in the proposal. This RFP used a weighted evaluation system, where sustainability was not a separate evaluation category. There is no mention as to what category this checklist falls under and its weight, if any, is unknown.

Supplier Diversity		
26. In the space below, indicate the Proponent's company profile with regards to social value and economic inclusion supporting equity, diversity, inclusion and reconciliation, including social/environmental certifications, workforce diversity and/or if owned/controlled by an equity-seeking demographic (including but not limited to non-profit, cooperative, Women, Indigenous Peoples, Ethno-cultural People (minorities, newcomers, immigrants), persons with disabilities or LGBTQ+ people).		
Majority owned/controlled/ by:	Workforce Diversity:	Social / Environmental Certifications
☐ Women ☐ Indigenous Peoples ☐ Non-Profit/Charity (Social Enterprise) ☐ Coop ☐ Community Contribution Corporation (3C/CCC) ☐ Ethno-cultural Persons ☐ People with Disabilities ☐ LGBTQ+ ☐ Other: please indicate	☐ % Women ☐ % Indigenous Peoples ☐ % Ethno-cultural People ☐ % People with Disabilities ☐ % LGBTQ+ ☐ % Other: please indicate	☐ BCorp ☐ BuySocial ☐ Supplier Diversity Certification ☐ Fairtrade ☐ Green Business Certification (ie. LEED, ClimateSmart) ☐ Other: please indicate

Figure 7. Inclusion of sustainability within the evaluative component for a municipal IT RFP.

Only 12% or six RFPs reached the third tier, integrating sustainability as an independent category within the evaluation section. Those that used a weighted evaluation system had weights ranging from 1% to 15%, with an average of 5% being allocated to sustainability. Even though this was the highest tier any RFPs reached, sustainability integration continued to be minimal, given low weightings and very general language with little indication of specific impact areas.

Although there were two RFPs in total that had a stronger focus on sustainability (with inclusion of sustainability as an independent consideration of 10% or more), they lacked clarity around accountability in the submission process with no mention of mechanisms to ensure compliance.

In order to provide greater understanding, we included below (see Figures 8–10) samples of the RFPs with the most significant integration from each category.

4. Affected ██████ First Nation Participation Plan (1, 2 and 3 each scored out of 5 and summed to provide a weighted score)			
The Proponent should provide a plan that identifies and describes how the work can be completed in a manner that provides opportunities for Affected ██████ First Nations ██████ in the following categories.			
1. Training and/or capacity development (5 points)			
a. Quantification of the training and/or capacity development proposed (training and/or capacity areas and number of hours/year).	___/5		___/15
b. A description of how the training will be delivered.			
2. Direct employment (5 points)			
a. Quantification of the levels of ██████ labour proposed, as a percentage of overall labour employed.	___/5		
3. Sub-contracting opportunities (5 points)			
a. Dollar value of the proposed level of subcontracting/supply with a description of services and supplies to be provided by ██████ sub-contractors.	___/5		

Figure 8. Most significant integration example from the construction sector.

RATED CRITERIA	MINIMUM RATED CRITERIA THRESHOLD	TOTAL WEIGHT	SUB-WEIGHT	SCORE (?/10)
Section #1 : Financial Viability:	No Threshold	3%		
Section # 2 :Organizational Management & Customer Approach:	5/10	4%		
Section # 3.1 Functional Requirements: Specification & Upgradeability:	5/10	3%		
Section # 3.2 Functional Requirements: Warranty:	5/10	7%		
Section # 3.3 Functional Requirements: Compatibility:	5/10	4%		
Section # 3.4 Functional Requirements: Technology & Change Management:	5/10	10%		
Section # 3.5 Functional Requirements: Security	5/10	5%		
Section # 4.1 Non-Functional Requirements: Logistics Expectations:	5/10	3%		
Section # 4.2 Non-Functional Requirements: Quality Programs & Certifications:	5/10	3%		
Section # 4.3 Non-Functional Requirements: Notices & Reporting:	5/10	4%		
Section # 4.4 Non-Functional Requirements: Disposal:	5/10	9%		
Section # 5 : Brand Currency, Life Cycle and Future Innovation	5/10	5%		

Figure 9. Most significant integration example from the IT sector.

4.2 Evaluation Process

The main areas of consideration and the weighting in the evaluation process are:

- Service Provider Qualifications and Customer Service - (20%)
- Sustainability - (15%)
- Health and Safety – (20%)
- Additional Features - Value Added - (5%)
- Food and Coffee Services – (25%)
- Pricing – (15%)

Figure 10. Most significant integration example from large services.

4.1.1. Most Significant Integration Example from the Construction Sector

In the construction RFP for large-scale maintenance of an abandoned mine site, the scope of work outlined in the RFP includes maintaining the safe structures of roadways, buildings, and water treatment plants. The depth of integration for this construction example listed was the strongest. Sustainable criteria were worth 9% in total; calculated as 15% within the technical criteria weighted at 60%. Price in this RFP was valued at 40%.

Examining this “best in class RFP”, the gaps are evident. Firstly, it is solely focused on providing opportunities for First Nations Youth. It does not address any other critical social and environmental areas beyond compliance with regulations. This is despite a number of high-impact features, including an arsenic treatment plant.

Secondly, there is no clarity around specific goals or impacts the RFP is attempting to address. Given the focus on aboriginal participation, there is an opportunity to go beyond the focus on youth participation and build in goals around diversity of employees at all levels of the organization, including management, share of total wages for aboriginal peoples, and a commitment to living wages.

4.1.2. Most Significant Integration Example from the IT Sector

For IT products and services, the best example would be for printer hardware. Within the 60% weight allocated to factors outside of price, 9% of these, or 5.4% of the total, is allocated towards sustainability, with a sole focus on disposal. In addition to this, within the non-functional requirements section, there are requirements for Energy Star qualified EPEAT gold certification, as well as requirements for a disposal/take back program for printers and toners. Key opportunity areas in this RFP include specifications related to and requests for information on impact areas ranging from carbon footprint throughout the lifecycle, to energy usage and use of recycled content. In addition, an outline of mechanisms to ensure delivery of sustainability initiatives and attributes would be valuable.

4.1.3. Most Significant Integration Example from the Large Services Sector

The strongest example from large services was from an RFP for food and coffee services. Sustainability had a 15% weighting and focused on broad environmental efforts. In addition, it includes a breadth of stated considerations and requests ranging from a preference for sustainable products and services, and an expectation that the provider have its own sustainability plan during the term of the agreement, to a requirement that the provider participate in any type of recycling or green cleaning program the procurer may undertake. Despite the heavy point allocation, there is an opportunity to increase the direction on the material impact areas for the RFP and to build in mechanisms for accountability. Given that this RFP requires proponents to operate a cafeteria and provide catering services, significant impact areas range from waste, including food containers, packaging, and food waste, and carbon and water footprints associated with food sold, to economic participation of employees in lower paid food and service functions. Requesting specific information, such as target waste levels, percentage of food sales that are organic or local, and/or percentage of employees receiving

a living wage, would strengthen the RFP, allow for comparability across vendors, create mechanisms for accountability, and trigger a deeper integration of sustainability into the plan.

Overall, there was superficial integration of sustainability into the RFPs, with no RFPs reaching the highest tier and only 12% reaching the third tier, where even the best had significant gaps. This indicates that procurement is not being used as a tool to advance established public policy and sustainability commitments. As such, bids with large carbon and social footprints may be awarded the contract, at the expense of bidders who have invested in the development of strong sustainability initiatives that would help governments meet their sustainability targets. This is a serious missed opportunity in a time of urgent need and scarce resources.

4.2. Finding 2: Sustainability Integration into RFPs is Currently Narrow with Limited Consideration for Material Social and Environmental Issues

Sustainability is a complex issue. Advancing towards it requires advancement on a range of social and environmental impact areas. Reflective of this, the United Nations has outlined 17 SDGs that aim to address core issues like climate change, inequalities, poverty, as well as good health and well-being. Meaningfully advancing on sustainability requires that all RFP providers understand and commit to addressing their material areas of impact. Materiality should be considered using the Global Reporting Initiative's definition, which refers to "aspects that reflect the organization's significant economic, environmental, and social impacts; or substantively influence the assessments and decisions of stakeholders" [23]. As a whole, there was a demonstrated lack of understanding and incorporation of material issues within the analyzed RFPs.

Only 78% of RFPs even reached the first tier by incorporating either base-level environmental or social considerations. As we move to tier B, only 20% of RFPs incorporated three or more areas of consideration covering both social and environmental impacts. Only one RFP analyzed reached the top tier, which required incorporating five or more specific areas of consideration (see Figure 11). Below we have provided samples reflecting the RFPs with the broadest social and environmental considerations from each sector (see Figures 12–14).

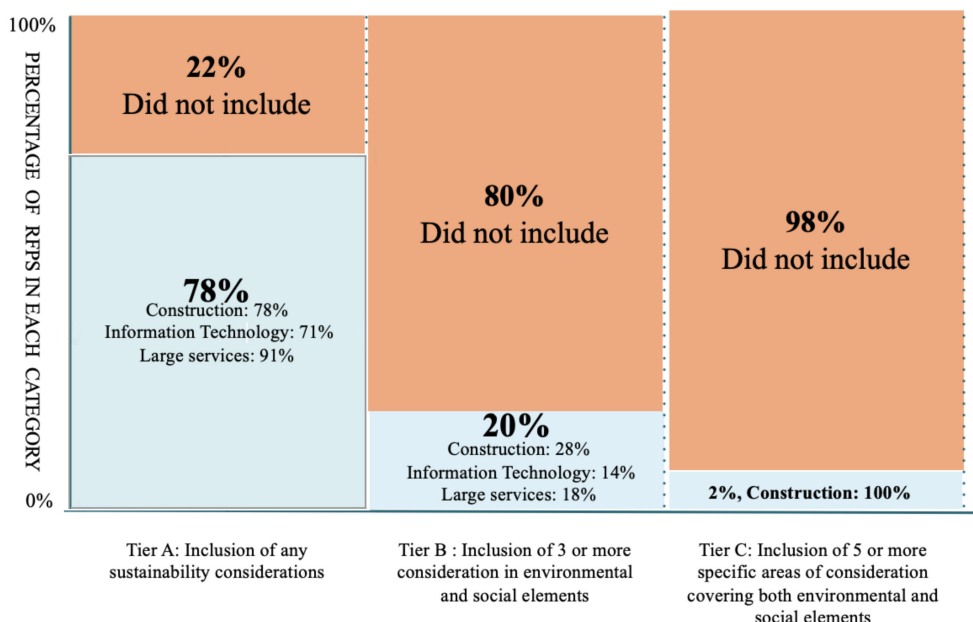


Figure 11. Inclusion of social and environmental considerations.

16. Fair Wage And Labour Trades Policy

The Contractor and all associated subcontractors, shall be subject to the City's Fair Wage Policy and Labour Trades Obligations, as adopted by the City from time to time, and any of the City's or legislated labour trades requirements. Failure to comply with this policy and/or these requirements, may lead to termination of the Contract, or termination or rejection of a subcontractor, as the case may be, with no recourse by the Contractor in respect of such termination or rejection.

The Fair Wage Schedule that is applicable to this Contract is set out in Section 2 – Information for Bidders – of this Tender Call

Figure 12. Broadest RFP example from the construction sector.

9.0 CITY POLICIES

- 9.1 The City's Procurement Policy, Ethical Purchasing Policy and related Supplier Code of Conduct found at [REDACTED] align the City's approach to procurement with its corporate social, environmental and economic sustainability values and goals. They evidence the City's commitment to maximize benefits to the environment and the community through product and service selection, and to ensure safe and healthy workplaces, where human and civil rights are respected. Each Proponent is expected to adhere to the supplier performance standards set forth in the Supplier Code of Conduct. The Ethical Purchasing Policy shall be referred to in the evaluation of Proposals, to the extent applicable.

Figure 13. Broadest RFP example from the IT sector.

Sustainability

The [REDACTED] recognizes that procurement decisions can make a difference in the pursuit of environmental stewardship. The [REDACTED] is committed to advance the Sustainable use of resources, enhance environmental quality, reduce waste, and increase social responsibility.

The [REDACTED] prefers that products and processes used by the Service Provider be Sustainable whenever possible and shall use eco-friendly and biodegradable products in the provision of Food and Coffee Services. During the term of the Agreement the Service Provider will be expected to propose new and/or updated Sustainable products and practices when and as available.

The Service Provider is expected to have its own sustainability plan in place during the term of the Agreement.

Figure 14. Broadest RFP example from the large services sector.

4.2.1. Broadest RFP Example from the Construction Sector

The municipal RFP for construction of a parkette covers numerous social and environmental impact areas and was the only RFP that reached the highest tier. On the social side, the RFP describes and requires adherence to a Fair Wage Policy, outlined in Figure 12, and makes mention of encouraging suppliers to have gender parity on their boards. The RFP also describes a social procurement program with various goals. In terms of environmental impact areas, several areas are addressed. The RFP requires commitment to comply with a general environmentally responsible procurement statement. In addition, within the scope of work sections, the RFP outlines a number of environment-related specifications, including requirements to protect existing trees, source specific wood products that are certified by the Forest Stewardship Council, separate and salvage materials suitable for recycling from general waste stream, and prevent water contamination. Although several impact areas are considered through the 300-page RFP, there continue to be opportunities to strengthen this RFP including further

work to connect existing policies to the particular bid and to encourage implementation. For example, despite a requirement that bidders are aware of the Environmentally Responsible Procurement Policy, there is no clarity on what environmentally preferred products would be priority for this RFP. Also, there is an opportunity to strengthen the language used. For example, the municipality “encourages” bidders to develop or implement a supplier diversity policy but does not require it.

4.2.2. Broadest RFP Example from the IT sector

From the IT category, this municipal RFP for a point of sale solution provides for broad consideration of sustainability impact areas. The RFP specifically requires completion of a supplier diversity checklist and a signed statement outlining compliance to the supplier code of conduct, which sets out minimum standards in a variety of areas. On the social side, it requires compliance by the supplier and any sub-contractor with legislation and international standards in a variety of areas, ranging from child labor and forced labor to wages and benefits. In the environmental aspect, it requires that all waste materials are disposed of in an environmentally responsible manner and according to local legislation.

Absent from this 91-page RFP is a specific consideration for expected energy usage and carbon impacts associated with the point of sale (POS) service and data servers. Despite very detailed technical requirements and a city procurement policy stating that an evaluation model leveraging Total Cost of Ownership (TCO) including environmental, social, and economic costs and benefits will be used where appropriate, there are no requirements nor requests for any data around expected energy usage and carbon emissions associated with the presented POS solution. Also absent is a requirement to comply with legislation and international standards for materials within the supply chain. It is expected that conflict minerals would be a concern with the hardware component of this POS solution and despite requirements around child and forced labor for contractors and sub-contractors in the supplier code of conduct, there are no requirements for materials in the supply chain.

The above gaps, combined with general links to the city’s procurement policy, ethical purchasing policy (see Figure 13), and a description of the Living Wage Policy, which is not applicable to the particular RFP, create a sense that the policies and existing minimum bars have been included but there has not been material consideration for sustainability in the early design stages of the RFP.

4.2.3. Broadest RFP Example from the Large Services Sector

Below is the leading example from a provincial RFP that requested food and coffee services. This is the same RFP that had the most significant integration of sustainability with a 15% weighting. The RFP outlines a preference for products and processes that are sustainable, including a requirement to use “eco-friendly and biodegradable products”, an expectation that the service provider would propose new or updated sustainable products and practices, and an expectation that the provider has its own sustainability plan (see Figure 14). In the food quality section of the requirements, there is an expectation for a menu with healthier alternatives and a request for information on organic and fair trade. In the service provider response instructions, the RFP requests a breadth of information, including around recycling programs, sustainable products and processes, and an organizational environmental policy statement. Although this strong RFP has a breadth of general considerations, it only has four specific considerations, and so was in the second tier. As outlined earlier, this RFP could be enhanced by requesting specific information such as target waste levels, percentage of food sales that are organic or local, and/or percentage of employees receiving a living wage. Enhancing the specificity would strengthen the RFP and increase the potential for impact.

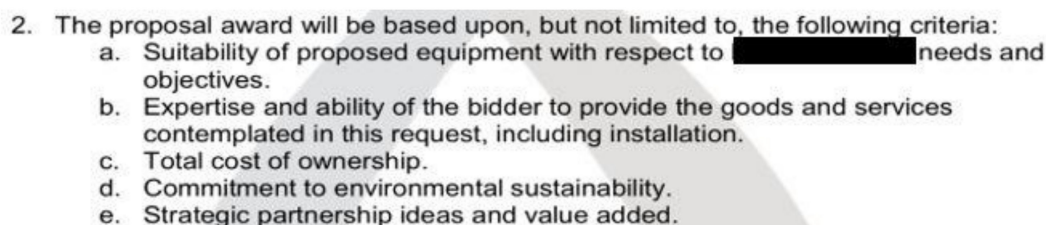
4.3. Finding 3: There Is Limited Consideration for Total Cost of Ownership when Looking at Price

One common misconception is that sustainability is expensive. Traditionally, in an interest to ensure fiduciary responsibility through meaningful stewardship of taxpayer dollars, procurement has been focused on securing the best price, commonly believed to be the lowest initial price. Pricing can

be misleading. The initial price does not include the total costs associated with acquiring, using, and disposing of a product or service [32]. Elements with financial implications not typically included in price can range from maintenance, expected lifespan, reparability, energy usage, as well as disposal costs. Typically, ignoring these costs feeds into lower quality and shorter-lived products.

Given this, it is evident that for meaningful evaluation, procurers require an understanding and comparison of TCO. Lack of understanding around TCO keeps pricing elements hidden and distorts pricing data. A focus on price, excluding total cost of ownership, can lead to the selection of a bidder with pricing that is in fact higher than competitors', and consequently poor stewardship of taxpayer dollars.

We found only two, or 4%, of RFPs made mention of TCO. Despite this mention of TCO, neither of the two RFPs requested any data that would enable the full costs to be calculated. The first RFP (see Figure 15a) mentioned TCO in the section on winning bid criteria but did not mention it again in the RFP and did not factor it into the evaluation system. There were also no requests for relevant data, such as energy usage estimates, that might support a total cost of ownership calculation.

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2. The proposal award will be based upon, but not limited to, the following criteria:
- a. Suitability of proposed equipment with respect to [REDACTED] needs and objectives.
 - b. Expertise and ability of the bidder to provide the goods and services contemplated in this request, including installation.
 - c. Total cost of ownership.
 - d. Commitment to environmental sustainability.
 - e. Strategic partnership ideas and value added.

(a)

The requirement to reduce the TCO within the Printer category / Hardware Requirements will largely be met by demonstrating increasing discounts, lower pricing, increase value in product and services over time. A combination of price decreases coupled with product quality, break fix services and shortened delivery times will represent rational value. Various reports will demonstrate this value over time using the original RFP pricing response as a benchmark.

(b)

Figure 15. (a) IT municipal RFP incorporating Total Cost of Ownership (TCO) (1). (b) IT municipal RFP incorporating TCO (2).

Although the second RFP (see Figure 15b) for a printing device had more detail surrounding total cost of ownership, it seemed to have limited understanding of TCO. It lacked requests for material data, including expected energy usage, lifespan, and ability to upgrade, yet was focused on increasing discounts and lower pricing.

In order to provide an example of the impact of using TCO, we used an EPEAT calculator tool that allows users to compare EPEAT-certified products with their non-certified counterparts. The calculator demonstrates the environmental benefits and shows users the overall cost savings through reduced energy use [33]. To demonstrate this point, we used an RFP for computing devices, requiring 3419 desktop computers and 1716 laptop computers. This RFP does not list any considerations or requirements for sustainable-certified products. Using the EPEAT calculator and an imposed requirement for silver-level certification, we found a cost savings of \$350,000 on energy usage alone. Given that there are a number of other elements associated with total cost of ownership, including lifespan, reparability, and disposal, we expect that using TCO would provide significant savings to any organization.

We would expect to see similar benefits of using TCO in other categories. In a 2006 study of Leadership in Energy and Environmental Design (LEED) certified schools, researchers found that energy costs were 33% lower than conventional design [34]. The same study found that water use was reduced by 32%, and maintenance savings in LEED-certified buildings was \$8/square foot. This cost reduction was attributed to the higher quality materials used, and reuse of many materials, which also

lowers disposal costs. This example demonstrates the benefit of having a clear understanding of total cost of ownership.

5. Opportunity Areas

Given the low level of sustainability integration into existing RFPs it is evident that there are compelling opportunities to better utilize procurement to help advance sustainability-related government commitments and policy objectives. We have identified four specific recommendations that can enable a more effective use of this high impact tool.

5.1. Ensure a Deep Understanding of the Breadth and Scale of Social and Environmental Impacts Associated with Purchasing Decisions

The analysis revealed a severe lack of clarity and direction around material impact areas of the procured services and products. If procuring organizations had an understanding of material issues and opportunities and were expected to connect their work to sustainability-related government policies and commitments, it would have been evident in the RFPs. There is an opportunity for departmental and procurement professionals to be responsible for fully understanding the breadth of impacts associated with their purchasing decisions. This process would require dedicating resources to understanding material impacts of purchasing, as well as the implications of relevant policy commitments.

Synergistically, there is an opportunity for policy leads to better incorporate procurement into their implementation strategies and dedicate resources to engaging and educating both departmental and procurement professionals around material impact areas and policies. Given the complexity of both sustainability as well as product and service supply chains, one cannot expect an in-depth understanding of material issues and meaningful opportunities in isolation. Constructive and solutions-oriented collaboration between policy, departmental, procurement, and supplier professionals can lay the foundation for meaningful advancement of sustainability and integration into procurement.

5.2. Establish Specific Goals, Processes, and Systems to Manage and Monitor Integration of Sustainability within the Procurement Process

Recent research found that existing policy goals are, in most cases, not reflected in the objectives, performance evaluation metrics, systems of reward, and ongoing management metrics of the procurement function within public sector institutions [35]. This analysis and the finding of generally superficial and narrow integration of sustainability within existing RFPs supports the perspective provided by interviewees in the original research. Given that all meaningful change requires a commitment to that change combined with the allocation of commensurate resources to advance the change, we see the establishment of specific goals and management systems as critical to enabling the meaningful integration of sustainability into public procurement.

5.3. Restructure RFP Standards to Meaningfully Incorporate Sustainability in the Evaluation Process and to Require Critical Sustainability Related Information

It is natural that evaluation would drive behavior and responses; bidders looking to be successful focus on what is clearly articulated as priorities in the RFP. If sustainability is missing from the evaluation section, in most cases it will be absent from the procuring organizations priorities, as well as from the response and priorities of bidders. There is a significant opportunity to restructure the standard RFP design to meaningfully incorporate sustainability into the evaluation process. This will ensure that sustainability is being incorporated, evaluated and tracked.

This can be accomplished in a variety of ways, including:

- Requiring the identification of material areas of impact by the procurer and the request of specific and detailed information to enable the assessment of the bid with regards to these areas. Requiring procurers to invest in understanding material areas of impact will ensure that there is upfront consideration and incorporation into the RFP. Requiring bidders to provide details ranging from

impact assessments, energy usage, and employee wages to participation in any relevant third-party certifications such as EPEAT, Certified B Corporation, or LEED will signal to the marketplace that procurers are serious about sustainability.

- Establishing sustainability thresholds for bid responsiveness. For example, for a bid to be considered, it must meet x, y, and z requirements. Given the urgency of today's environmental and social issues, we need to make investment in sustainability a requirement of doing business. Failing to do so will lead to a continuation of the status quo and ineffective use of procurement as a tool for change.
- Modifying the evaluation systems to meaningfully incorporate sustainability:
 - In bids *with* disclosed weightings within the evaluation section, it is recommended that a minimum weighting for a sustainability category be applied. Although weighting would vary depending on categories and impacts, it is expected that meaningful integration would require a range of 10–20% allocation.
 - In bids *without* disclosed weightings within the evaluation section, it is recommended that sustainability be included as a separate category with specific requirements that will be considered in the evaluation. Evaluators should then be instructed to meaningfully consider sustainability in their evaluation.
- Outlining the requirements to enable validation of sustainability commitments. Including such mechanisms of accountability will ensure that bidders not only commit to integration of sustainability priorities, but also allocate resources to the integration, management, monitoring, and reporting on sustainability efforts.

5.4. Require Incorporation of Total Cost of Ownership into Each RFP

Procurement is generally focused on obtaining a desired product or service at the lowest cost possible. The advancement of sustainable products/services is made even more difficult when the full scope of real financial costs, as well as environmental and social costs are not considered. In addition, the lack of consideration for the full costs of a product or service can be seen as inappropriate stewardship of taxpayer dollars. Requiring the incorporation of total cost of ownership into each RFP would ensure a more level playing field and better stewardship of collective funds.

6. Further Research

This research has established that the integration of sustainability into Canadian public sector procurement is both superficial and narrow. Through the analysis of 50 publicly available RFPs within three high impact and high dollar value categories, we have exposed significant gaps and made recommendations for addressing these gaps. In addition to the recommendations outlined above, there are meaningful opportunities to build on this research, including the establishment of a collaboratively generated and peer-reviewed standard for an annual RFP public monitor assessing the integration of sustainability within procurement. Such a monitor is critically needed to assess and create accountability for progress on sustainability integration. It would benefit from a wider and more comprehensive artificial intelligence (AI)-enabled process, including text analysis to identify common language, biases, and opportunities, and gain from an accompanying identification of material impacts areas for assessed categories in order to more effectively assess the breadth of integration.

7. Conclusions

We intended to clarify whether there was a gap in sustainability outcomes achieved through procurement, or alternatively, limited integration of sustainability into public procurement. Our analysis has exposed meager progress on the integration of sustainability into public sector procurement. Considering the breadth of urgent sustainability crises and a variety of commitments to advancing green procurement over the last 25 years, as well as a breadth of commitments to sustainability, such a

superficial and narrow integration indicates deficiencies in public sector commitment and effort to integrate sustainability into procurement at scale.

We have a scientific consensus around the climate emergency [36], daily evidence of sustainability crises including the brewing economic inequality catastrophe [37], and the waste disaster [38]. Our disconcerting gaps highlight the compelling potential to meaningfully integrate sustainability into public sector procurement. Realizing this potential requires a vision with specific goals and commitments to allocate material and sufficient resources to this work. Meaningful integration will not be easy. It is, however, absolutely possible and urgently needed.

In conclusion, given the much needed and publicly made commitments to addressing the urgent environmental and social crises, it is our hope that leaders both champion the integration of sustainability into procurement and allocate the human and financial resources required to enable the integration. We believe that doing so will provide significant benefits to stakeholders, including advancing existing policy objectives around climate change and the SDGs, enabling market transformation by incentivizing change, and enhancing stewardship of taxpayer dollars [14,39].

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