ONEIA
ONTARIO ENVIRONMENT INDUSTRY ASSOCIATION



**ONEIA**
192 Spadina Avenue
Suite 306
Toronto, ON M5T 2C2

Executive Director
**Alex Gill**

Operations Manager
**Janelle Yanishewski**

Tel: (416) 531-7884
info@oneia.ca
www.oneia.ca

June 29, 2021

Infrastructure Canada
Communications
180 Kent Street, Suite 1100
Ottawa, Ontario, K1P 0B6

**RE: Ontario Environment Industry Association (ONEIA) Comments with Respect to Canada's National Infrastructure Assessment**

**To whom it may concern,**

On behalf of Ontario's more than 3,000 environment and cleantech firms, the Ontario Environment Industry Association (ONEIA) is pleased to provide our comments on The National Infrastructure Assessment Report.

## About ONEIA

Ontario is home to Canada's largest group of environment and cleantech companies. The most recent statistics from the federal government show that Ontario's environment sector employs more than 226,000 people across a range of sub-sectors. This includes firms working in such diverse areas as materials collection and transfer, resource recovery, composting and recycling solutions, alternative energy systems, environmental consulting, brownfield remediation, and water treatment – to name just a few. These companies contribute more than $25-billion to the provincial economy, with approximately $5.8-billion of this amount coming from export earnings.

Members of ONEIA are committed to engaging with governments as they develop policies and regulations that are consistent with our principles of sound science, sound environment and a sound economy. To that end, we convened a working group of members drawn from across various sectors to review the federal output-based pricing system.

## Introduction

In Canada, the vast majority of public infrastructure is primarily owned by municipal governments, followed by provincial and territorial governments, with only a small portion owned directly by the federal government and Indigenous communities.

As the country embarks on historic investments in infrastructure to tackle climate change and transition to a circular economy, we are concerned by the lack of reference to environmental projects, particularly in the waste diversion and management sector. Our members in this sector believe that its efforts in this area can deliver significant and sustainable results. Additionally, COVID-19 has magnified the challenges municipalities are facing investing public funds prudently while bringing forth key infrastructure projects.

While public private partnerships, or P3s, have been successful with social capital and transportation projects, the procurement and development of large scale municipal environmental infrastructure projects through conventional P3 project models has become increasingly problematic. There is broad consensus that the current P3 model when applied to specific environmental infrastructure asset classes (such as those requiring investments of more than $50-million) shifts too much risk to project developers; focuses on the lowest or fixed bids (to the exclusion of other relevant criteria); is more likely to lead to prohibitive costs for the bid developer; and, that project proposals have become too prescriptive and therefore discourage innovation.

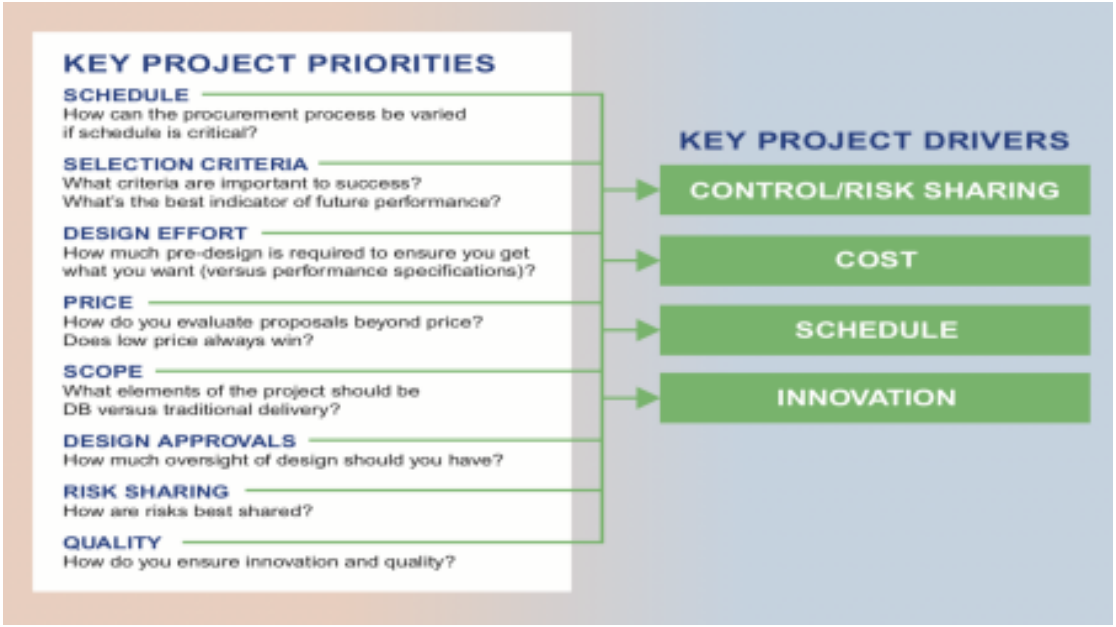
As a result, notwithstanding the amounts earmarked for infrastructure projects, the number of competitive vendors for municipal environmental projects is likely to continue to decline as the aforementioned issues present a barrier to entry for many Ontario companies. This is particularly an issue for medium to smaller sized Canadian companies, which are likely to be affected by the factors to an even greater degree. As such, there are calls from the project development and advisory community for a modified project development model that will increase collaboration, flexibility and transparency, that will, in turn, lead to lower project costs, certainty on project delivery, encourage new and innovative technologies and ensure value-added benefits to the host communities and their respective ratepayers.

The purpose of this backgrounder is to initiate a discussion on the key challenges in the delivery of critical municipal environmental infrastructure and provide potential solutions to help municipalities and their advisors with the efficient and effective development of these projects in Ontario.

**Challenges**

Environmental infrastructure projects are complex, particularly in the field of waste. It is critical to address and resolve, to the greatest extent possible, key project priorities preferably during the feasibility stage within the project development continuum. These project priorities become project drivers

which are highlighted below. While not an exhaustive list, it covers the critical issues that need to be addressed in the development of projects.



*Water Design Build Council*

Depending on the specific project, the owner and its priorities, objectives, internal capacity and risk, there are four key project drivers (typically on a sliding scale) associated with large scale municipal environmental infrastructure projects through conventional P3 project models that have become increasingly problematic:

1. **Control/Risk Sharing:** Municipal projects typically transfer the design, build, operations and performance risk to a consortium or bid team. It is important to note that project Design-Build (DB) services are for a shorter term (e.g. three to four years) and are generally focused on providing the upfront design, technology supply, construction and facility commissioning. This is distinct and mutually exclusive from the longer-term Operations & Maintenance (O&M) services for a longer term (often beyond 20 years), end-products marketing and the related beneficial end-products distribution to end users/customers by the O&M services provider. There are very few companies that will take on the entire design, build, operate and maintenance of a project. As a consequence, the exercise of allocating risk within the bid team becomes problematic.

2. **Cost:** A focus on the lowest cost or fixed bid can potentially be a disincentive to encouraging innovation and, combined with a limited indicative design and excessive risk transfer, has made proposed projects a challenge for project developers. Prioritizing lowest cost in conjunction

with other constraints such as overly prescriptive requirements can lead to lack of innovation.

3. **Schedule:** The timelines and associated cost for companies to prepare a proposal has risen to the point it is becoming exorbitant and this is particularly a challenge for smaller, local (e.g. non-multinational and employee-owned companies).

4. **Innovation:** Project development proposals have become too prescriptive in the proposed project delivery thus negating the opportunity for companies to bring forth alternative innovative solutions. This significantly diminishes the opportunity for municipalities to consider alternate technologies.

The cumulative effect of these challenges is that it will reduce competition and discourage innovation, having a particularly negative impact on local (e.g. non-multinational) and smaller and employee-owned firms. By pursuing this approach, this places municipalities in a position of inadvertently "picking winners and losers.".

**Collaborative Project Delivery Options: A Brief Background**

A wide spectrum of project delivery options is available to municipalities. These range from Design-Build-Bid, Construction Management at Risk, Design Build at Risk/Operations & Maintenance at Risk, Progressive Design-Build, Fixed-Price-Design-Build, Design-Build-Operate to Public Private Partnerships. All of these approaches serve particular purposes.

The progressive design build approach or model is a continuous collaborative process that allows municipalities to develop projects that focus on key drivers such as control/risk sharing, costs, schedules, etc. and ensures that lifecycle asset management efficiencies are actively incorporated into design and construction of the facility. This, in turn, encourages accountability and competitive pricing that then optimizes project scope, schedule, cost and performance. This move to a more collaborative process can be integrated into existing design build format contracts similar to an Alliance or Integrated Project Development model. Some of the key aspects of a progressive design build or an increased collaborative approach include:

- Provides an "open-book" process for the design and construction phases of a project in the context of a business partnership between a municipality and a private sector team. Structured properly, this enables accountability, competitive pricing, and continuous collaboration that can optimize project scope, schedule, cost and performance;

- Creates more integration and collaboration between the owner, design-builder (DB) and operations and maintenance (O&M) service providers throughout the design, construction and commissioning phases of the project delivery. This allows operational issues, end product quality and lifecycle asset management efficiencies to be actively incorporated into design and construction of the facility.
- By undertaking a more collaborative approach that involves an owner team, risk is reduced by optimizing the construction methodology, which allocates risk to the party best able to manage them which can lead to a better price as there is more accurate contingency. For example, a municipality can separately procure each service in order to ensure that the best preferred supplier is selected for each of these distinctively different services.
- Allows the application of commercially acceptable contracting terms and conditions, which can be exclusively and uniquely apportioned to the respective services provider (i.e., design, construction and O&M). This can then serve to mitigate the types of performance risk, liability and premium costs often found in an integrated turn-key delivery approach.
- Opens the procurement process to a wider pool of competitive teams, which are often composed of firms who provide separate DB and O&M services. These types of separate providers can then be strategically integrated via separate structures in order to best manage risk and cost.
- Provides a potential reduction of administrative burden to the municipality through a procurement process for selecting the most advantageous teams for phased implementation of DB and O&M services, while effectively transferring the performance requirements.
- Utilizing the O&M in the design process allows DB entities to mitigate the designer's cost risk investment at the "indicative" proposal phase and minimize the potential pay-out value of a proposal honorarium to the non-selected/pre-qualified teams. It is recommended that a retainer for the O&M engagement in the design process to achieve this outcome.
- Utilizing an "off-ramp" after the design phase, which allows a municipality to proceed with the construction phase based upon an affordable and approved gross maximum price (GMP), which can achieve a lower construction cost contingency.
- If an "off-ramp" is used, this could see the municipality own the developed design work package and allow for refinements of the construction and commissioning work plan and/or pricing without the

risk of the upfront large capital investment or funding engagement for the related construction works. This would also allow the municipality to refine the construction work plan, schedule and/or GMP during the design phase without any large cost investment and/or significant timing delays. It can also mitigate construction risk and contingency costs and lead to the negotiation of a refined and firm long-term O&M services pricing arrangement.

The significant difference between the traditional P3 model and the progressive design build model is that the operator's perspective and involvement is incorporated in the design, construction and commissioning of a project. Giving the O&M firm standing in the project design and development process can lead to performance commitments that are transparently developed and priced as well as building trust and stronger relationships between all parties. The DB firm retains the responsibility for commissioning, start-up, O&M manual preparation, training, acceptance testing and warranties but may subcontract these back to O&M service providers, if desired.

Under this approach, the municipality could attract more respondents leading to a more competitive field for the vendor selection process. Further, these DB and O&M teams would allow private companies from any jurisdiction and size (e.g. local, regional and global companies) with the relevant technical knowledge and expertise, financial strength and other capabilities to deliver turn-key DB and O&M services via progressive phases.

**Summary**

The progressive design, build and operate approach provides a procurement and engagement process that allows a municipality to select teams that are best suited to provide the practices and services that are most appropriate for the separate and distinct phases of the project. This model increases the collaboration, flexibility and transparency of the procurement and engagement process, assigns risks to the appropriate parties and facilitates project management and delivery in a manner that can be more cost-effective than a combined DBOM type of structure.

If you have any questions about our submission, please do not hesitate to contact our chair of our Environment Infrastructure Working Group Wes Muir (wesley.muir@veolia.com) or feel free to contact the ONEIA office directly at 416-531-7884.

Yours truly,

Alex Gill
Executive Director, ONEIA