

An Independent Study
Commissioned by



RESIDENTIAL AND
CIVIL
CONSTRUCTION
ALLIANCE OF
ONTARIO

Constructing Ontario's Future



Implementing a Canadian Infrastructure Investment Agency



RCCAO

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The Residential and Civil Construction Alliance of Ontario (RCCAO) is composed of management and labour groups that represent a wide spectrum of the Ontario construction industry.

The RCCAO's goal is to work in cooperation with governments and related stakeholders to offer realistic solutions to a variety of challenges facing the construction industry and which also have wider societal benefits.

RCCAO has independently commissioned 38 reports on planning, procuring, financing and building infrastructure, and we have submitted position papers to politicians and staff to help influence government decisions.

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Implementing a Canadian Infrastructure Investment Agency

An independent research study prepared for the Residential
and Civil Construction Alliance of Ontario (RCCAO)

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This is the follow-up independent research report to “Creating an Effective Canadian Infrastructure Bank,” written by Siemiatycki and commissioned by the Residential and Civil Construction Alliance of Ontario (RCCAO) in February 2016. As he explains later, the first report described what a Canadian Infrastructure Bank (CIB) would do; this one provides a roadmap for implementation by identifying a detailed mandate and governance structure to effectively operate such an organization.

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The viewpoints expressed in this report are those of the author and not necessarily the views of the RCCAO, the reviewers and other contributors, nor of the organizations with which Prof. Siemiatycki is associated. Any errors or shortcomings in the report are entirely the responsibility of the author.

EXECUTIVE SUMMARY



Across Canada, governments are ramping up investments in public infrastructure as a strategy to drive economic growth and prosperity, improve the environment, and enhance social equity and inclusion. However, an inherent tension is that the current practice in Canada is not always supporting the optimal selection of infrastructure projects for investment or effective project delivery, especially for very large mega-projects. This represents a major risk for Canada. Weak project selection means that costly infrastructure projects may be built that do not deliver sufficient benefit to warrant their investment. And poor project delivery can result in hundreds of millions of dollars in unexpected cost overruns and construction delays that are a major source of public frustration.

In response to the challenges ahead, in a February 2016 report commissioned by the Residential and Civil Construction Alliance of Ontario (RCCAO),¹ I proposed the formation of an arm's-length federal institution known as the Canadian Infrastructure Investment Agency (CIIA). The CIIA would be positioned as a national centre of excellence supporting rigorous project evaluation, procurement best practices and project financing under a single roof.

The purpose of this follow-up report is to focus more specifically on the details of operationalizing a CIIA. In particular, this report identifies the optimal mandate, tasks and structure for a CIIA within the crowded constellation of government and other institutions responsible for infrastructure provision in Canada. Based on a review of the current Canadian institutional landscape and international best practices, the report concludes that the CIIA would ideally provide a “light touch” approach to improving infrastructure investment decisions and delivery at all orders of government. Further, it would be carefully structured to avoid unwanted federal government intervention into the jurisdiction of provincial and municipal governments and First Nations or costly duplication of services. The report makes the following recommendations:

- ① **Arm’s-Length Agency:** Establish the CIIA as an independent, arm’s-length agency of the federal government, which is modeled after the mandate of Infrastructure Australia and the U.K. Infrastructure and Projects Authority. The mandate of the CIIA will be to serve as a national centre of excellence focusing on the largest-scale infrastructure projects in the country, with capital values of more than \$100 million. These major projects will be of national or regional importance, have significant budgetary and societal implications by nature of their size and require special attention to ensure that they are well executed.
- ② **Advisory Role:** Ensure that the CIIA acts in an advisory rather than decision-making or funding capacity. This structure will preserve the distinction between supporting impartial technical evaluation of policy options and political oversight of decision-making and funding allocation that is central to the Canadian democratic system.
- ③ **Project Financing:** Develop a team within the CIIA that has the technical expertise to advise the Minister of Infrastructure and Communities about the optimal model for the federal government to finance public works mega-projects that are submitted to the CIIA for review. The finance team of the CIIA can also be responsible for evaluating and maximizing the returns on any federal government-mandated asset sales.
- ④ **Project Selection and Prioritization Support:** Empower the CIIA to develop standard evidence-based project evaluation tools that any government or private sector proponent would use to assess infrastructure mega-projects with capital values over \$100 million seeking federal government funding support. The CIIA would independently review the quality of the data and results of the submitted evaluation report for each proposed project, and make a recommendation to the Minister of Infrastructure and Communities about whether the project delivers sufficient benefit to warrant federal investment. The CIIA would maintain a list of national infrastructure priorities based on the results of the evidence-based project evaluations. Projects on the priority list would be allocated funding as money becomes available.

5 Project Delivery: Create a delivery confidence assessment system whereby the CIIA peer reviews the detailed delivery plans for all mega-projects receiving federal funding, and provides an assessment as to the degree of likelihood that the project can be delivered within time and budget. A traffic light system has been used to report on the results of such peer reviews internationally: green-light projects have a high probability of being delivered as planned; yellow-light projects have some areas where deficiencies are flagged for improvement; red-light projects are those where there are serious risks to delivering the project as proposed and require a major overhaul in approach or do not proceed. The federal government should study in detail the option of transferring the PPP project procurement advising responsibilities of PPP Canada into the CIIA to create a single federal institution that provides project procurement advising services to large infrastructure projects that use all delivery models.

6 Transparency, Accountability, Capacity Building: Develop the CIIA as a national hub for transparent reporting on infrastructure project evaluations and priorities, and a catalyst for knowledge sharing and capacity building across all levels of government and with First Nations. This can include the formation of a national infrastructure leaders training academy, the creation of national standards for collecting and compiling data on infrastructure project delivery and outcomes, and the hosting of a forum that brings together infrastructure leaders from different levels of government to share experiences and learn about best practices. The CIIA should also be legally mandated to post the results of all project evaluations (positive and negative) and the national Infrastructure Priority List online. The transparent reporting of this documentation would provide key information necessary for Canadians to scrutinize the project selection choices of their elected decision-makers against the CIIA's Infrastructure Priority List.

The CIIA, as proposed in this report, will not come cheaply. Estimates based on national and international experience with similar agencies suggest that the CIIA will require federal operating funding of up to \$200 million over 10 years. However, this investment pales in comparison to the \$120 billion that the federal government has proposed spending on infrastructure over the same period. The formation of a CIIA will enable the federal government to maximize the benefits of their investment over the years ahead through a more comprehensive approach to project financing, selection and delivery.



A. INTRODUCTION

Across Canada, at all levels of government, delivering infrastructure has risen to the top of the policy agenda. Over the next decade, the Government of Canada has proposed to invest \$120 billion on infrastructure projects nationwide. Provincial and municipal governments have also pledged billions of dollars towards infrastructure investment.

In order to support this unparalleled period of infrastructure investment, the federal government has proposed establishing a Canadian Infrastructure Bank (CIB). In broad terms, a CIB would be designed to provide low-cost financing (loans and guarantees) to infrastructure projects, yet in practice there is ambiguity about the specific functions, governance structure and value added of such a federal institution.

Given the national interest in the formation of a CIB, in early 2016, I was commissioned by RCCAO to conduct a study on the merits of such a proposal. In the report “Creating an Effective Infrastructure Bank,” I developed a high-level vision about the purpose and structure of a federal infrastructure agency in Canada. The report proposed that the federal government could most significantly contribute to the delivery of infrastructure nationwide by creating an institution called the Canadian Infrastructure Investment Agency (CIIA), which would expand on the idea of an infrastructure bank. The CIIA would operate as a national centre of excellence, supporting rigorous project evaluation and procurement best practices, as well as providing access to low-cost financing for worthwhile projects where access to capital was a hurdle to the project proceeding.

The recommendation to create a CIIA stimulated considerable discussion about the merits of such a proposal, through consultations with key government and industry stakeholders.

The purpose of this follow-up technical report is to focus more specifically on the details of operationalizing a CIIA. As a report geared towards informing the formation of a CIIA, it is explicitly situated within the current institutional and political landscape, and designed to provide a pragmatic menu of options for implementing a CIIA that will maximize the national benefit of such an organization. The report proceeds as follows.

- Section B identifies the value-added contribution that the formation of a CIIA can make in Canada in two ways: first, detailing gaps in the current institutional landscape; second, documenting the functions of model infrastructure agencies in Australia and the U.K.
- Section C specifies the menu of tasks that could be effectively provided by a CIIA.
- Section D outlines a governance structure for the CIIA.
- Section E explains how the federal CIIA can be structured to foster synergies rather than conflicts with other orders of government.
- Section F examines the likely operating costs of establishing a CIIA.

B. VALUE ADDED BY A CIIA

In forming a new federal infrastructure agency, the key questions to be answered are:

1. What specific value would a CIIA add to the existing institutional landscape?
2. What particular tasks should it provide?
3. How should it be structured?

Answering these questions effectively can be informed by taking an inside view of the current institutions involved in the provision of infrastructure in Canada, as well as an outside view of international experiences with creating national-level infrastructure investment agencies.

Existing Institutional and Political Landscape

First, it is necessary to provide a brief overview of the roles and responsibilities of the existing actors involved in the provision of infrastructure in Canada, and highlight key gaps in services that exist. As illustrated in Figure 1, responsibility for planning, financing and delivering infrastructure in Canada is widely dispersed between and within the different levels of government, indigenous communities, private and non-profit sectors. The provincial and municipal governments are responsible for the majority of public infrastructure priority setting, investment and project delivery in key sectors such as surface transportation, health, drinking water and wastewater disposal, energy, justice and education. And alongside First Nations leaders, the federal government is significantly involved in the planning and funding of infrastructure projects in First Nations communities.² Yet within each level of government, different line ministries, departments and agencies have various responsibilities for financing, selecting and delivering infrastructure projects. Indeed, Canada has a crowded constellation of institutions responsible for providing infrastructure, and adding a new star to this system must be carefully planned to avoid costly duplication or clashes that reduce effectiveness.

Figure 1: Responsibilities for Infrastructure in Canada

FEDERAL	PROVINCIAL	MUNICIPAL	FIRST NATIONS	PRIVATE	NON-PROFIT
<p>Responsible for Infrastructure Policy Setting and Funding Approvals</p> <ul style="list-style-type: none"> • Privy Council Office • Infrastructure Canada • Ministry of Finance <p>Enterprise Crown Corporations that Provide Banking Type Services (Financing, Insurance and Bonding Services)</p> <ul style="list-style-type: none"> • Business Development Canada • Export Development Canada • Bank of Canada <p>Federal Crown Corporations that Plan, Finance and Provide Major Infrastructure</p> <ul style="list-style-type: none"> • VIA Rail • Windsor-Detroit Bridge Authority • Jacques Cartier and Champlain Bridges Inc. • Port Authorities • CMHC <p>Line Ministries that Plan, Build and Operate Large Federal Infrastructure</p> <ul style="list-style-type: none"> • Ministry of Transportation • Ministry of Fisheries and Oceans Canada • Indigenous and Northern Affairs • PWGSC <p>Consolidated Crown Corporations Providing Infrastructure Investing and Advisory Services</p> <ul style="list-style-type: none"> • PPP Canada 	<p>Provincial Infrastructure Policy and Funding Approvals</p> <ul style="list-style-type: none"> • Provincial Treasury Board <p>Provincial Infrastructure Policy Setting</p> <ul style="list-style-type: none"> • Provincial Infrastructure Ministries • Ministry of Municipal Affairs <p>Line Ministries that Plan, Build and Operate Infrastructure</p> <ul style="list-style-type: none"> • Ministry of Transportation • Ministry of Health • Ministry of Education <p>Crown Agencies that Provide Infrastructure Procurement Advising, financing, and Project Delivery Services</p> <ul style="list-style-type: none"> • PPP Agencies • Infrastructure Procurement Agencies <p>Provincial Agencies that Provide Pooled Lending Services to Crown Corporations and Municipalities</p> <ul style="list-style-type: none"> • Provincial Financing Authorities <p>Provincial Crown Corporations that Plan, Finance and Provide Major Infrastructure</p> <ul style="list-style-type: none"> • Metrolinx • BC Ferries • Hydro Quebec • Nalcor Energy 	<p>Municipal Infrastructure Strategic Planning</p> <ul style="list-style-type: none"> • City Managers Office • City Planning Department • Engineering Services <p>Municipal Departments that Plan, Procure and Operate Public Infrastructure</p> <ul style="list-style-type: none"> • Water and wastewater • Transportation Services • Public Transit <p>Municipal Agencies and Crown Corporations that Plan, Procure and Operate Public Infrastructure</p> <ul style="list-style-type: none"> • Transit • Affordable Housing • Energy • Water and wastewater • Waste disposal <p>Local Enterprise Crown Corporations that Provide Infrastructure Services</p> <ul style="list-style-type: none"> • Airport Authorities in large urban centres 	<p>Infrastructure Prioritization</p> <ul style="list-style-type: none"> • Contribute to development of National First Nations Infrastructure Plan, which is led by Indigenous and Northern Affairs Canada. Each First Nation Community produces a 5-year capital plan, which then contributes to the national investment strategy <p>Indigenous Community Owned Infrastructure</p> <ul style="list-style-type: none"> • Power generation projects • Community housing • Infrastructure construction and operation companies <p>Legal duty to be consulted, and where appropriate, accommodated on plans that may impact on indigenous communities or treaty rights</p>	<p>Private Utilities</p> <ul style="list-style-type: none"> • Telecoms • Pipelines • Energy production • Freight rail <p>Financiers</p> <ul style="list-style-type: none"> • Banks • Institutional Investors • Private Equity <p>Construction Contractors</p> <p>Infrastructure Operating and Maintenance Firms</p> <p>Professional Service Advisers</p> <ul style="list-style-type: none"> • Lawyers • Financial Advisers • Engineers • Design advisers 	<p>First Nations Finance Authority</p> <p>Non-Profit Owners and/ or Operators of Infrastructure</p> <ul style="list-style-type: none"> • Affordable housing • Long-term care • Homeless shelters • Major cultural institutions (i.e., museums, art galleries, etc.) • Community centres/ sports and recreation facilities (i.e., YMCA)

One important observation is that there are already a wide variety of institutions nationwide that provide low-cost financing services to government and private investors on commercial terms. This includes finance authorities in seven provinces, the non-profit First Nations Finance Authority, and Business Development Canada, a federal Crown corporation that provides low-cost financing to support private business ventures.

Another important feature of the existing context is that there is little political appetite for the federal government or one of its agencies to become more directly involved in the specific project selection decisions of other orders of government. Neither the current federal government or their provincial, municipal and First Nations partners want the federal government to play a direct role in picking projects that are within the jurisdiction of other orders of government. At the same time, there is a desire to create a new relationship between the federal government and the various levels of government and First Nations based on collaboration, shared resources and joint problem solving to improve the overall state of infrastructure planning and provision across the country. As such the political climate is pointing towards the formation of a federal infrastructure agency that operates with a light touch rather than a heavy hand. There are international models that showcase the optimal design of such an agency.

International Infrastructure Agency Models

In particular, two international infrastructure agencies provide guidance on the optimal model and tasks to be assigned to a federally developed infrastructure agency in Canada: Infrastructure Australia, and the U.K. Infrastructure and Projects Authority.

- **Infrastructure Australia:** This body was formed through an act of parliament by the national government in 2008 to provide independent research and advice to all levels of government on infrastructure financing, delivery and operations. As of 2014, Infrastructure Australia is constituted as an independent agency with a non-political board of directors, which is empowered to appoint its own chief executive. The act that created Infrastructure Australia also explicitly states that the responsible federal minister is not to provide any direction about the content of any audit, project evaluation or guidance advice.

Infrastructure Australia is tasked with developing and maintaining a national Infrastructure Priority List across the transport, energy, water and telecommunications sectors, and auditing the infrastructure priority plans of state governments. In order to undertake this work, Infrastructure Australia has developed an extensive set of standardized project evaluation tools, templates and submission procedures that public and private sector applicants must follow when applying to have their large projects designated as being of national significance and placed on the Infrastructure Priority List. Infrastructure Australia does not make decisions about project funding. Instead, it independently evaluates project proposals that are submitted based on a rigorous evidence-based approach and makes recommendations to government about which projects are highest priority. These recommendations then inform national government funding decisions towards state, local government or private sector projects. Infrastructure Australia provides a high level of transparency by clearly reporting on project submissions, evaluation results and recommendations on its website.

● **U.K. Infrastructure and Projects Authority:** This agency was created by the national government in January 2016. It was formed as a merger of two separate bodies: Infrastructure U.K. which was established in 2010 to oversee large public infrastructure projects, and the Major Projects Authority which was inaugurated in 2011 to provide procurement assistance on large projects. The Infrastructure and Projects Authority brings together expertise in infrastructure project finance, long-term prioritization, and delivery assurances in a single unit within the cabinet office, reporting to the chancellor and the minister for the Cabinet Office. The Authority develops national infrastructure investment plans, and administers a national training and certification program for project managers that deliver large projects in order to improve procurement skills. It also provides Delivery Confidence Assessments to all major infrastructure projects in its portfolio. These assessments serve as a form of independent peer review. A team of experts reviews the feasibility of the plans for major projects that are proposed, as well as the whole-lifecycle costs of the project. Projects are assessed using a traffic-light system: projects given a green light are appraised as having a high likelihood of being delivered on time and on budget, with a high level of confidence about the whole lifecycle project cost; yellow-light projects require further careful scrutiny and attention; red-light projects are considered unachievable and recommended to be reconceived before final approval is granted. The services provided by the Infrastructure and Projects Authority are meant to increase the level of staff skill and confidence that the most beneficial projects are selected, and raise the likelihood that these projects can be delivered effectively. The Authority also serves a key transparency function by collecting and publishing extensive data on the U.K. infrastructure sector. Overall, the Authority provides expert advice to government on infrastructure financing but does not have a role in directly approving or financing infrastructure projects in the U.K.

As described above, Infrastructure Australia and the U.K. Infrastructure and Projects Authority have their similarities and differences in terms of institutional positioning relative to government, mandate, and core functions. On key points pertaining to their mandate, however, there is considerable overlap. Neither has their own directly controlled funds or authority to approve major capital outlays on behalf of the national government, either as loans or grants. Both are designed in an advisory rather than decision-making capacity. Both play a role in compiling infrastructure priority plans for very large projects of national significance. Both provide recommendations on the merits of projects using independent evidence-based assessments, which are then taken up by the responsible minister who makes the ultimate project approval and funding decision. And both serve a key transparency and knowledge creation role by compiling and publishing information on the national provision of major infrastructure in their respective countries.

Critical to the success of a national infrastructure agency is the independence of the organization from direct government intervention. This point is so significant that it is directly written into the legislation that empowers Infrastructure Australia. A recent report by the Public Accounts Committee of the U.K. Parliament, however, found that the Infrastructure and Projects Authority risked not being entirely effective in improving national decision-making because it was not sufficiently independent from government.³ A key lesson is that independence from government is critical for a national infrastructure agency to provide unbiased advice based on the best technical evidence available, which is then reported transparently to government decision-makers and the general public.

C. THE FORMATION AND MANDATE OF A CIIA

Based on the international experience and gaps in the existing institutions responsible for the provision of infrastructure in Canada, the CIIA should:

- be mandated as a centre of excellence, and;
- focus on the financing, effective prioritization and delivery of the largest-scale infrastructure projects in the country, with capital values of over \$100 million.

The \$100-million cost threshold has been selected for five reasons.

1. It represents the largest public and private sector infrastructure projects being carried out in Canada at any one time. By the very nature of their size, these mega-projects tend to be of regional or national significance.
2. Projects with a cost threshold of \$100 million warrant a rigorous study of the benefits and costs to ensure appropriate prioritization, analysis which itself can cost millions of dollars.
3. Due to their size and scale, poor project delivery on mega-projects can create very big construction cost overruns and public disruptions due to delays.
4. The selection of sub-optimal mega-projects for development will draw substantial money away from other higher priorities, and create significant long-term operating and maintenance obligations that must be covered.
5. The selection of \$100 million as the threshold for involvement by the CIIA will create a national pipeline of projects that is sufficiently large to sustain the activities of a single agency, while ensuring that all orders of government are only required to undertake extensive feasibility studies on their largest projects.

Rough estimates suggest that, at any given time in Canada, there are between 250-350 public and private sector initiated infrastructure mega-projects with capital values of over \$100 million that are in various stages of the planning and project delivery cycle. The majority of the largest mega-projects are provincial and municipally owned, primarily in the transportation and energy sectors. Between 2002 and 2015, the federal government provided financial grant contributions to approximately 100 provincial and municipal infrastructure projects costing \$100 million or more.⁴ And currently, of the 100 largest infrastructure mega-projects being planned or under construction in Canada, 28 have received federal grants or loans, with money coming from various ministry budgets and funding programs.⁵

Conversely, the majority of provincial and municipal infrastructure projects that receive federal grant contributions in Canada have capital costs of less than \$10 million. For these smaller capital projects, it is recommended that the federal government shift greater emphasis from application-based grants to block transfer funding to streamline the process and enhance local accountability of decision-making.⁶

Given the proposed mandate of the CIIA, the value-added contribution of creating a federal infrastructure agency is to provide services in four key areas: 1. project financing support; 2. project evaluation and prioritization advising; 3. project delivery support; 4. transparency, accountability and capacity building.

The following is a description of the menu of proposed services that could be provided by the CIIA in each area, which are summarized in Table 1.

Table 1: Menu of Tasks for the CIIA

INFRASTRUCTURE FINANCE	PROJECT EVALUATION AND SELECTION SCREENS	PROJECT DELIVERY	TRANSPARENCY, ACCOUNTABILITY, CAPACITY BUILDING
<p>Make recommendations to the Minister of Infrastructure and Communities on projects over \$100 million that should receive federal grants, loans or credit enhancements.</p> <p>Create a team with expertise to analyze the merits and maximize the value of any asset sale or monetization initiatives initiated by the federal government.</p> <p>Explore the option of allocating revenue from profitable federal infrastructure assets or profits from privatized assets to the CIIA to be reinvested in revenue-stream supported projects.</p> <p>Explore the option of providing federal loan support through existing government financing authorities.</p>	<p>Develop standard project evaluation methodologies based on business case and cost-benefit analysis best practices.</p> <p>Develop the in-house expertise to evaluate technical cost-benefit analysis evidence about the merits of an infrastructure project, as it pertains to the environment, economy and social equity. Apply this expertise to assess all funding applications for projects over \$100 million.</p> <p>Evaluate the financial sustainability of operations and maintenance plans associated with new infrastructure proposals.</p> <p>Provide recommendations to the Minister of Infrastructure and Communities on the merits of project funding applications, based on the technical evidence contained in the submission.</p> <p>Provide seed money for subnational governments to develop regional infrastructure priority lists.</p>	<p>Create a central major project procurement support unit that would provide transaction advisory services to large federal projects as well as other governments seeking assistance.</p> <p>Carry out independent project-risk assessments for projects over \$100 million receiving federal investment.</p> <p>Create a national training academy for senior managers that plan and deliver large-scale infrastructure.</p> <p>Develop a team within the CIIA to support infrastructure project delivery in indigenous communities.</p>	<p>Publish clear criteria and assessment templates upon which project submissions will be assessed.</p> <p>Publish assessment of project applications, including ruling on whether funding is being recommended.</p> <p>Compile and update maps and statistics on projects that receive positive and negative recommendations. Clearly report on which projects are then approved by government.</p> <p>Conduct and commission independent research on current infrastructure topics.</p> <p>Create national standards for collecting and compiling data on infrastructure project delivery and outcomes.</p>

DETAILED DESCRIPTION OF CIIA TASKS

① Infrastructure Financing

- Make recommendations to the Minister of Infrastructure and Communities on the merits of all applications to the federal government to provide grants, direct loans or credit enhancements to major infrastructure projects with capital values of over \$100 million. Federal government departments, subnational governments, First Nations, and private sector and non-profits proposing publicly beneficial projects could make applications for federal investment support through the CIIA. Based on the recommendation from the CIIA, the Minister of Infrastructure and Communities would decide on funding approval, and approved funding would then be administered by Infrastructure Canada and accounted for on the federal balance sheet.
- Provide technical advice to federal departments and agencies to maximize the value of any asset sale or monetization initiatives mandated by federal government policy. Given the complexity of such deals, there are significant risks that assets will be underpriced at the time of sale or that the terms of the sale may adversely impact future provision of public services (i.e. loss of long-term government flexibility or control, uncontrolled user fee increases, etc.). It is therefore necessary to have an experienced team in place to oversee any asset sales to maximize the public return.
- If there is strong interest in capitalizing the CIIA to create a pool of money for an “independent infrastructure bank facility” (i.e. loans and credit enhancements on commercial terms rather than grants), an innovative option would be to assign the revenues from profit-making federal infrastructure assets that would pay an annual dividend to the CIIA. This revenue stream could be borrowed against at historically low interest rates with the money lent to future infrastructure projects. Large profit-returning assets owned by the federal government include airports and, to a lesser extent, seaports, which together remit over \$300 million per year in rent and other charges to the federal government.⁷ A second option would be selling profitable federal infrastructure assets and recycling the one-time revenue into future projects through the CIIA. This option is not recommended unless the asset being sold is found to be poorly managed in public control and ripe for service-quality improvements, efficiency gains (as opposed to wage cuts) or substantial revenue growth in the private sector.⁸

Harry Kitchen and Enid Slack argue that user fees are most publicly acceptable if the money is dedicated to visible infrastructure projects rather than allocated to general government revenues.⁹ The CIIA could thus provide clear public accountability of how much money is raised through federal infrastructure monetization efforts (both asset sales and user fees) and how it is spent. If the government decides to follow such a strategy, one clear prerequisite is that all revenues are invested by the CIIA in top priority projects that will drive economic productivity, competitiveness and social equity returns. This is something that can only be assured if project selection is based on careful cost-benefit evaluations rather than political expedience.

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- Explore the options to extend federal financial support to infrastructure projects through existing public lending institutions, including the federal Business Development Canada, the provincial finance authorities in seven jurisdictions, and the non-profit First Nations Finance Authority. This would leverage federal resources while avoiding costly duplications of services with existing provincial and non-profit agencies that are already providing low-cost financing strategies within their jurisdiction.

② Project Evaluations and Selection Screens

A primary function of the CIIA is to develop and consistently apply rigorous evidence-based project evaluation screens to all applications for federal contributions to major infrastructure projects in Canada. The objective is to create a structure that supports a balance between evidence-based planning with appropriate political and public oversight, without the federal government intervening in subnational government project selection decisions. The outlined approach ensures that all mega-projects applying for federal infrastructure funds are evaluated using the same general method, ensuring comparability of project benefits and national fairness. The introduction of an evidence-based project evaluation screen is especially important for large controversial projects. In such cases, there are often disputes either within the local community or between various levels of government about the quality or interpretation of the technical evidence upon which the decision is based.¹⁰

The CIIA will be tasked with developing robust standard project evaluation tools to be used by applicants to assess the benefits and costs of all projects with capital costs of more than \$100 million that are submitted to the federal government for funding. Based on historic trends and the dramatic increase in infrastructure spending in the coming years, it is expected that approximately 10-20 projects per year would be the subject of such analysis. Mega-projects that are funded by a subnational government or First Nation without a federal contribution would not be required to use the CIIA's project assessment methodology.

The process outlined below is based on the model used by Infrastructure Australia, an especially useful comparator for Canada given that it operates in a federal system where responsibility for infrastructure decisions is divided between the national, state and local governments. The proposed model is designed to encourage collaboration between the applicant (public, First Nation, private or non-profit sector proponents) and the CIIA, in developing infrastructure solutions that maximize existing assets and support strategic investments in new facilities. It also ensures that the CIIA functions like an auditor general of mega-project business case studies: it neutrally evaluates the supporting evidence and provides a recommendation on the merits of a project. The CIIA is not directly responsible for the political approval decisions or determining subnational government investment priorities, which are ultimately made by government to ensure appropriate democratic oversight. The process would work as follows.

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- **Evaluation Tool Development:** The CIIA develops a consistent, robust project evaluation tool with detailed guidance on how it should be applied by any public, private or non-profit sector entity applying for federal infrastructure funding for a project with a capital value of more than \$100 million. The framework will be a structured, multi-staged approach to identifying problems and assess solution options across various infrastructure sectors. It will emphasize weighing the economic, social and environmental benefits and costs of the proposed project. The CIIA can draw on business case best practices from Infrastructure Australia, the U.K. Treasury Office, Transport Scotland and the academic community to develop a tailored Canadian model that is rigorous, robust and feasible to apply. The standard evaluation tool and guidance documents will be developed in consultation with subnational government stakeholders. It will be made publicly available on the CIIA's website, along with supporting template documents.
 - **Project Pre-Screening:** Prospective project proponents will be encouraged to correspond with the CIIA early in the project conceptualization phase to receive initial feedback on the merits of their proposal. Pre-screening will be sufficiently rigorous such that only projects with a reasonable chance of gaining a positive review will be supported. If a proposal is deemed to have the potential of being approved, the proponents would be formally encouraged to proceed with a full business-case evaluation. To encourage high-quality project planning and the production of sound evidence by project proponents across the country, the CIIA could offer grants to offset some of the project evaluation costs.¹¹ Check-ins and off-ramps could be built into the evaluation system for very large projects to provide opportunities for feedback and to recalibrate projects where the initial analysis of benefits is not positive.
 - **Full Business Case Production:** It is expected that the actual work of producing the full business case for complex mega-projects will be conducted by private professional service firms that are hired by the project sponsor, which will be a federal department, provincial or municipal government, First Nation or private sector entity. This is the general practice for governments currently evaluating large infrastructure projects in Canada. The contractor will take their guidance on the project specifications from the project sponsor, and evaluate it using the CIIA's business-case framework. Given the specialized technical expertise required to conduct such evaluation work for large infrastructure mega-projects, the CIIA may consider creating a national registry of pre-qualified firms that are deemed able to undertake such complex studies. This would also provide a structure to monitor the quality of the analysis produced by the various firms.
 - **Financial Sustainability Assessment:** At present the Canadian federal government typically provides funding for capital expenses and thus primarily evaluates projects based on the viability of the capital dimensions of the project. In order to encourage strong long-term asset management planning of all major infrastructure investments in Canada, the federal government will also require an asset management plan for each project requesting funding. This plan will document how the sponsor intends to fund the full long-term operating and maintenance costs of the project over its entire lifecycle, including user-fee revenues and operating cost subsidies. It will thus document the long-term affordability of the capital projects being proposed, and should spur conversations about the application and setting of user-fee rates.

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- **Full Business Case Submission Evaluation:** Based on the results of the business case and the financial sustainability assessment, the project sponsor decides whether to proceed with the project. If the sponsor decides in the affirmative and would like to proceed with applying for a federal government contribution for the project, then they would submit their completed business case and financial sustainability report to the CIIA. The staff of the CIIA, with support from external consultants if necessary, would evaluate the quality of the evidence and merits of the proposal. To execute this function, the CIIA will need to develop strong internal staff capacity to evaluate the evidence contained within submitted business cases. The CIIA would provide one of three recommendations on the merits of the proposal:
 1. The project merits being placed on the national major infrastructure funding priority list and is recommended for federal capital investment.
 2. The project proposal has potential merits but requires further refinement prior to being resubmitted for review.
 3. The project does not merit being placed on the national funding priority list.

The recommendation judgment along with a letter outlining the reasoning for the decision is submitted to the Minister of Infrastructure and Communities, and posted publicly on the CIIA's website.

- **Ministerial Funding Approval:** The recommendation of the CIIA is strictly advisory and the agency does not have responsibility for approving federal government funding decisions. The Minister of Infrastructure and Communities reviews the recommendations on all submitted projects and decides on federal funding approvals for major grants, loans and credit enhancements. Approved grant funding would then be administered by Infrastructure Canada and accounted for on the federal balance sheet. If the CIIA has a commercial infrastructure lending facility, it could be assigned the role of financing the approved project on a cost-recovery basis.
- **Final Project Approval by the Sponsor:** The recommendation of the CIIA provides an independent third-party assessment of the merits and financial sustainability of the proposed mega-project. The project sponsor and all other government or private sector funding partners can use the CIIA recommendation and the supporting technical documentation as evidence upon which to base their final approval decisions. It must be emphasized that the CIIA recommendation and supporting evidence will remain strictly advisory. Subnational governments may decide to proceed with a project regardless of the recommendation of the CIIA. Subnational governments and their partners may also decide to proceed with a project even if the federal government declines to provide funding; however, they would need to find an alternative source of project funding.
- **Long-term infrastructure network plans:** While planning infrastructure on a project-by-project basis is a key challenge for all levels of government in Canada, so is taking a longer-term view towards planning infrastructure at the regional network scale. As part of encouraging such activities, the CIIA should explore providing financial incentives and seed money to local governments to conduct regional planning exercises to prioritize infrastructure investment at a network level. Prioritized projects would then provide a basis upon which specific project assessments would be conducted as part of the request for federal capital grants or loans. The CIIA should study the American Metropolitan Planning Organization system as a model that could provide some insights for a tailored Canadian approach to coordinated regional infrastructure planning.¹²

③ Project Delivery

Finding the appropriate roles for the federal government in infrastructure project delivery (i.e. detailed design, procurement, construction, operations and maintenance) must be carefully designed to ensure that it fits seamlessly with the existing institutional landscape. The federal government's activity in the actual construction and operations of large infrastructure in Canada is limited. According to ReNew Canada's Top100 Projects report of the nation's biggest infrastructure projects in 2016, federal government ministries, departments, agencies and Crown corporations delivered fewer than five projects.¹³ Rather, the federal government is most significantly involved in infrastructure nationwide as a funding contributor to projects that are delivered by the provinces and municipalities. Six provinces have their own centralized major project delivery agency or departments to support provincial and, in some cases, municipal asset procurement. The specific design of these provincial procurement organizations varies, but all provide advisory services across government ministries and some actually take on the role of running large project delivery on behalf of their line ministry clients. As such, at the federal level to avoid overlap, the optimal role for the CIIA in the project delivery sphere is to provide services that increase public sector expertise and support the use of procurement best practices.

- **Project Procurement Support Unit:** Create a unit within the CIIA that has the expertise to support the effective procurement of large federal infrastructure assets across the various line ministries and Crown agencies. With the development of this in-house expertise, the CIIA could then provide procurement support on federally sponsored government mega-projects in provinces (Newfoundland, Nova Scotia, P.E.I., Manitoba) and territories that do not have their own infrastructure procurement agency as well as with municipalities that request procurement support. In this model, the CIIA would not take over the management of project delivery where assistance is requested, but rather collaborate as a partner or serve in an advisory role. Importantly, to avoid actual or perceived conflicts of interest with the CIIA's role as an independent evaluator of project benefits, the CIIA should provide no fee-for-service transaction advising or procurement support services until after the project has been vetted by the agency and approved for funding by the Minister of Infrastructure and Communities. As a proof of concept, PPP Canada currently provides procurement advisory services in the PPP sector. Importantly, PPP Canada has demonstrated a capacity to work with multiple orders of government, including directly with municipalities on large transit and wastewater treatment plant projects, with provincial agencies, and in multi-government partnerships between municipalities, provincial ministries and the federal government. However, its national impact is limited because the agency is mandated to focus only on supporting PPP and related alternative forms of procurement. This can leave mega-projects nationwide that are procured through models other than PPPs without an agency that could provide expert federal procurement support, and limits the learning of common best-practice procurement lessons across project delivery models. The federal government should study in detail the option of transferring the PPP project procurement advising responsibilities of PPP Canada into the CIIA to create a single federal institution that provides project procurement advising services to large infrastructure projects that use all delivery models.

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- **Procurement Risk Assessment Peer Reviews:** These would mandate that all major capital projects receiving federal money must be subject to an independent assessment by the CIIA of the likelihood of major risks materializing, and quality of plans in place to manage risk. Such an assessment would be conducted prior to the disbursement of federal funds. The use of independent risk assessments of major infrastructure projects is a strategy that has been successfully applied in the U.K. and Norway to reduce the prevalence of cost overruns. Such a system would function as an independent peer review, while ensuring that the line of accountability remains with the project sponsor and construction contractor.
 - **Indigenous Infrastructure Delivery Support:** The federal government has pledged \$8.4 billion over five years for critical investments in infrastructure in indigenous communities, including in the education, water, housing and transportation sectors. Most of these projects will be far smaller than the \$100-million threshold for the CIIA. However, there is a critical need to ensure that these projects are delivered efficiently, and that capacity building takes place so that indigenous-owned firms and workers can take a leading role in the asset building and maintenance processes. Infrastructure provision has the potential to be a significant source of economic development and job creation in indigenous communities. The CIIA should develop a team with cross-cultural training to support infrastructure investments and project delivery capacity building in indigenous communities across Canada.
 - **Mega-Projects Leadership Academy:** This would fund the development of an independent training academy for senior civil servants overseeing mega-projects at all levels of government. This will ensure that they are applying the most current, best practice techniques when planning and delivering projects worth billions of dollars. As is done in the U.K., the federal government should explore requiring that at least one public staff member on all mega-projects has passed through the leadership academy. In the U.K., there is early evidence that the presence of more highly trained public staff working on mega-projects has contributed to more projects being completed on time and on budget.¹⁴

④ **Transparency, Accountability, Capacity Building**

- **Transparency and Accountability:** The CIIA should serve as a central hub for transparent and accountable infrastructure decision-making in Canada. The agency should maintain a robust website that posts all assessment guidance documents, project assessment review recommendation decisions, as well as the final funding decision by the Minister of Infrastructure and Communities. The agency should also post regularly updated maps and descriptions of all major infrastructure projects that have received federal government funding, as well as the assessment that the project received through the CIIA assessment. Importantly, the CIIA should be tasked with communicating complex technical data from the business cases (such as cost-benefit ratios and net present value project costs) in a standard summary format that is publicly accessible and can be used to inform political and public deliberations about investment priorities and decisions.¹⁵ The CIIA should be legally mandated to post all project evaluation reports (both positive and negative) online to ensure transparency of reporting.

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- **Data Collection Standards:** The CIIA should lead an initiative to create national data collection standards and a central repository for information on all major infrastructure projects that receive federal funding contributions. This will make it possible to run increasingly sophisticated data analytics to gain more insight about the effectiveness of Canada’s infrastructure assets, and better prioritize and plan future investments. Collecting and storing data can have significant costs, and the CIIA should explore providing grants to subnational governments to support this undertaking.
 - **Convene a national forum for senior infrastructure leaders:** Given the scale of public investment in infrastructure across the country, senior infrastructure delivery practitioners with public organizations that procure very large projects would benefit from a regular forum where they can meet to learn about new policy developments, discuss common challenges and share best practice solutions. The forum would bring together leaders from the federal, provincial and municipal governments, First Nations, Crown agencies and public utilities. In a sector where there is extensive multi-government collaboration, the forum may also provide a venue to create relationships that spur greater partnerships across all levels of government. The National Executive Forum on Public Property provides a model of a forum that has effectively brought senior public sector leaders together to exchange knowledge and experiences.¹⁶
 - **Federal Contact Point on Mega-Projects:** This would provide a central point of contact for the federal government to build relationships with existing line ministries and agencies of the federal government as well as the subnational governments that deliver infrastructure.
 - **Conduct and Commission Independent Research:** The CIIA should function as a centre of excellence that commissions independent research on key topics pertaining to the state of Canadian infrastructure.

D. CIIA STRUCTURE AND GOVERNANCE

Having identified a menu of services that the federal CIIA can provide in order to deliver value in the existing Canadian institutional landscape, attention is now turned to the optimal structure and governance of the CIIA. In particular, two key issues must be addressed. First, should the CIIA be part of an existing government department or established as an independent external Crown agency? Second, should the CIIA provide advisory recommendations to the Minister of Infrastructure and Communities on the merits of various projects, or should it be capitalized with its own funds and tasked with making infrastructure investment decisions. Resolving each of these governance issues involve trade-offs, which are identified in Tables 2 and 3 below. Based on the options, designing the CIIA as an external agency without a direct role in project funding approval is advantageous.

Independent vs. In-House Agency: For the CIIA to be successful in Canada’s complex institutional landscape where there are overlapping jurisdictional responsibilities for infrastructure planning, funding and project delivery, it is critical that the agency is strictly independent, neutral and free from federal partisan political influence. Indeed, the case of the U.K.’s Infrastructure and Projects Authority highlights how a national infrastructure agency’s effectiveness can be diminished because it is institutionally situated within government and therefore risks becoming an advocate for government plans.¹⁷ In this context, structuring the CIIA as an independent agency of the federal government rather than positioning it within an existing federal ministry will enable it to best realize its mandate. To reinforce this independence from the federal government, the legislation founding the CIIA should explicitly state that the responsible ministry is to have no direct involvement in the activities of the agency. The obligation for the CIIA to transparently report on the results of all project evaluation studies and produce a national Infrastructure Priority List provides another transparency mechanism for Canadians to hold decision-makers accountable for their project selection choices.

Table 2: Trade-offs of Independent Agency vs. In-House Agency Model

	INDEPENDENT AGENCY	AGENCY WITHIN DEPARTMENT OF GOVERNMENT
PROS	<ul style="list-style-type: none"> • Increased potential to make decisions free from political influence due to independence from government. • Likely to have greater credibility for independence with market and public stakeholders than a department of government. • May have greater hiring flexibility and thus ability to attract highly qualified staff from the public and private sectors. 	<ul style="list-style-type: none"> • Internal agency can more easily create synergies with wider government infrastructure policy and funding strategy. • Close democratic oversight of agency by responsible minister. • Lessons learned by the internal agency may be more easily transferred to other policy areas within the government department.
CONS	<ul style="list-style-type: none"> • Only as independent as the board of directors and politicians permit. Experience shows that some independent agencies are not truly independent from government influence. • Recommendations based on strict evidence criteria may not complement government policy on regional or sectoral allocation of infrastructure funds. • Board of directors often overly comprised of business leaders and not representative of wider community. • Crown agencies not always sufficiently accountable or transparent. • Salaries for agency staff often above typical public sector pay bands. • Additional costs to government are required to oversee and monitor the activities of an independent agency. 	<ul style="list-style-type: none"> • Potential for direct political meddling and influence on recommendations of the agency which could result in suboptimal decisions. • Internal agency priorities could be closely set by government. • Unlikely to be viewed as independent from federal government by private sector, subnational governments and community stakeholders. This could reduce the legitimacy of the CIIA and create credibility challenges.

Advisory vs. Decision-Making Agency: Establishing the CIIA with the power to provide independent recommendations to government rather than making funding decisions establishes an appropriate balance between expert-led and political involvement in infrastructure planning. It responds to stakeholder concerns that the formation of an independent agency would remove democratic oversight and accountability from key infrastructure investment decisions, while creating a forum for high quality project evaluation evidence to be produced and vetted. Based on the international experience with the structure of Infrastructure Australia and the U.K. Infrastructure and Projects Authority, the CIIA is best structured to apply rigorous independent advice on the merits of specific projects that are submitted for federal government investment support. Federal government grants, loans and credit enhancements can then be approved by the Minister of Infrastructure and Communities, and accounted for transparently on the public sector balance sheet. If the federal government is interested in capitalizing the CIIA, it should explore assigning profits from any federal asset sales or revenues from existing profitable federal infrastructure assets. This would create a ring-fenced fund that could be reinvested in profitable infrastructure projects across the country.

Table 3: Trade-offs of creating the CIIA as a Fund Granting Agency

	CIIA AS AN INVESTMENT ADVISORY AGENCY	CIIA EMPOWERED WITH FUNDING APPROVAL RESPONSIBILITY
PROS	<ul style="list-style-type: none"> • Maintains healthy separation between production of technical project evaluations and political oversight of decision-making. • Maintains strong democratic oversight of large federal spending programs. • Takes advantage of existing borrowing facilities of the federal government, and avoids duplication with federal and provincial agencies that provide commercial lending services. • Money accounted for transparently on the public balance sheet. 	<ul style="list-style-type: none"> • Creates a governance structure that may lower political influence on controversial infrastructure investment decisions due to independent board oversight. • Agency is incentivized to select profitable projects as returns fund organizational operations and provide ongoing capital to invest in future project. • Institutional mandate encourages innovation in deal structures and collaborations with various private partners to leverage additional funds.
CONS	<ul style="list-style-type: none"> • Increases potential for infrastructure investment decisions to be politicized by Minister of Infrastructure and Communities, regardless of CIIA recommendation on merits of project. 	<ul style="list-style-type: none"> • Risk that money allocated to projects that do not match top government priorities. • Lowers democratic oversight over large infrastructure investment decisions.

E. AVOIDING INTERGOVERNMENTAL CONFLICTS

A likely concern when creating the CIIA is that it could be seen as an unwanted incursion of the federal government into the jurisdictional responsibilities of the provinces and municipalities with regards to the provision of infrastructure. As noted above, there is little political interest on the part of federal, provincial and municipal leaders to have the federal government directly involved in or influencing the infrastructure investment decisions of other orders of government.¹⁸ This point is especially pertinent given that the overwhelming majority of infrastructure in Canada is municipally and provincially owned and operated, while a key role of the federal government has been to provide funding support through block transfers and capital grants.

At the same time, an inherent tension is that the current practice in Canada is not always supporting the optimal selection of infrastructure projects for investment or effective project delivery, especially for mega-projects. This represents a major risk for Canada at a time when billions of dollars are to be allocated to infrastructure investments across the country over the coming decade. In the absence of the consistent application of evidence-based planning, money could be spent on some mega-projects that will not deliver sufficient public benefits to warrant proceeding – creating additional public debt and long-term financial obligations for facility operations and maintenance. Persistent cost overruns and construction delays draw money away from other worthy projects and undermine public trust in the ability of government to deliver major projects and solve the nation’s most pressing problems. And conflicts have arisen between various orders of government over the merits of building major infrastructure projects.¹⁹

Against this backdrop, the proposed CIIA model has been specifically designed to have a light touch in guiding improved infrastructure planning and project delivery. It creates incentives and provides federal funding to support evidence-based planning for the largest mega-projects, while ensuring each order of government maintains their decision-making responsibility. A transition to more block grant transfers for smaller infrastructure projects is recommended to further empower subnational levels of government. Additionally, the CIIA is specifically designed to support collaboration and relationship building rather than confrontation between the different orders of government and First Nations responsible for infrastructure.

The objectives of the CIIA are achieved by:

- ① Establishing the CIIA as strictly independent from the federal government to guard against federal politics influencing the decisions of the agency.
- ② Developing the CIIA as an advisory rather than decision-making body. This institutional arrangement carefully balances the function of an independent agency in supporting the production of high quality technical evidence about the merits of a mega-project, with the democratic authority of politicians at all levels of government to ultimately decide which projects to approve and fund.

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- ③ Positioning the CIIA as a national centre of excellence with key roles in funding capacity building and improved data collection in the infrastructure sector across Canada. The CIIA creates a venue to foster collaboration, and provides services that will directly train and improve the capacity of subnational governments and First Nations in assessing and delivering infrastructure projects.
 - ④ Building on the existing mega-project procurement support services that PPP Canada already provides to provinces, territories, municipalities and First Nations, and expanding them to projects that are procured by models other than PPPs.
 - ⑤ Creating an expert team within the federal government to maximize the value of any asset monetization proposals, and explore the options to extend federal financial support to infrastructure projects through existing public and non-profit lending institutions.
 - ⑥ Improving transparency and accountability in infrastructure decision-making by providing independent recommendations on the technical strength of the case for developing mega-projects and publicizing results in a single location. This facilitates democratic accountability over public decision-making on infrastructure mega-projects, by providing an independent assessment of the supporting evidence for a project that can then be scrutinized by all orders of government and the general public.

F. AGENCY OPERATING COST AND REVENUE OPTIONS

The overall costs to the federal government of operating a CIIA must be considered when determining the merits of creating such an organization. Detailed reviews of project evaluation reports, project risk assessments, large-scale data collection, funding a training academy, primary research and transparency efforts can have substantial costs. And hiring top-level staff and consultants in finance, accounting, planning, engineering and project management comes with substantial salaries and benefits. If the CIIA is formed primarily as an infrastructure advisory agency that does not have a significant commercial lending mandate that generates interest fees, the agency will not be able to operate on a cost recovery basis. It will thus require the provision of annual operating funding from the federal government.

An indication of the order of magnitude of these costs can be roughly estimated based on the annual costs of operating other agencies with similar mandates. PPP Canada, for instance, had an annual operating budget in 2015 of \$14.5 million, and generated less than 20% (\$2 million) of its total revenues through project advisory fees.²⁰ And Infrastructure Australia had its entire AU\$10.6 million annual operating budget covered by revenues provided by the national government of Australia. Based on the experience with two similarly tasked agencies, a newly formed CIIA would require an annual operating subsidy of approximately \$10 million to \$20 million depending on its specific mandate and the revenue generating options it is empowered with.

Importantly, when setting up the mandate of the CIIA and establishing the cost recovery expectations, the federal government should consider that the perception of high fees for advisory services have sometimes been identified as a point of tension between project delivery agencies and their line ministry and municipal clients. This is especially in instances where governments have made their funding of projects effectively contingent on line ministries or municipalities working with the central procurement agency.

Subnational governments have also sometimes been critical of additional up-front costs they are required to incur when the federal government introduces new conditions on funding such as additional planning requirements, risk mitigation methodologies and data collection initiatives. Although in this case, additional project planning costs will only apply to a small number of the very largest public infrastructure projects conducted nationwide, the federal government should explore providing funding grants to offset some of these costs. When done rigorously, intensive up-front project planning is money well spent as it can cut down on the prevalence of cost overruns or the development of assets that do not deliver on their promised public benefits.

G. CONCLUSION

Overall, the main question for the federal government is whether the establishment of a national Canadian Infrastructure Investment Agency (CIIA) delivers sufficient value to offset the operating subsidies that will likely be required, as well as the additional costs that subnational governments will incur to meet the new federal requirements. Given the magnitude of public spending that will be allocated to infrastructure investments over the next decade, if the formation of the CIIA contributes to improved allocation of scarce resources and a reduction in major cost overruns that tend to plague large infrastructure projects, then it will far outweigh the annual operating subsidy required.

At the same time, the agency must be carefully designed to ensure that it fits within the existing constellation of governments responsible for infrastructure provision in Canada. It must also have mechanisms to provide financial support to cash-strapped provincial and municipal governments and First Nations that may incur increased costs to meet new planning and project management standards introduced by the CIIA. The quality of the relationships between the CIIA and its government and First Nations partners across the country is critical to the agency's success.

ENDNOTES

- 1 See “Creating an Effective Canadian Infrastructure Bank” at http://www.rccao.com/research/files/02_17_RCCAO_Federal-Infrastructure-Bank2016WEB.pdf
- 2 According to a 2015 Canadian Senate Report, First Nations leaders often feel that Federal officials do not sufficiently consult or listen to local needs when making housing or infrastructure investments in indigenous communities. See P. 11 of the report: <http://www.parl.gc.ca/Content/SEN/Committee/412/appa/rep/rep12jun15-e.pdf>
- 3 See Public Accounts Committee Report on Delivering major projects in government: <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmpubacc/710/710.pdf>
- 4 This estimate is based on Dahlby and Jackson’s data showing that the federal government provided capital grants to 79 projects between 2002 and 2015 with capital values over 100 million, plus 23 projects that received grants through the PPP Canada Fund. A number of other large infrastructure projects, such as the Muskrat Falls Dam in Newfoundland, will have received one-off loan guarantees from the federal government.
- 5 See ReNew Canada Magazine’s Top100 Infrastructure Projects report at: <http://top100projects.ca/>
- 6 Dahlby and Jackson find that half of all municipal and provincial infrastructure projects receiving federal grant contributions are smaller than \$1 million and 92% are smaller than \$10 million. They suggest that increasing block transfers for these smaller projects would improve the efficiency of the federal contribution to subnational infrastructure projects in Canada. At the same time, capital grant programs should be maintained for larger projects in small and rural communities.
- 7 For annual fees paid to the federal government by Canadian airports and ports, see: http://cacairports.ca/sites/default/files/CAC_Connecting_Canada_Leave_Behind_EN.pdf; <http://www.loppar.gc.ca/content/lop/ResearchPublications/tips/tip124-e.htm>
- 8 In 2014 Australia created an Asset Recycling Fund to invest the proceeds of public infrastructure sales in future projects through grants and loans. There is currently a vigorous debate about the merits of asset recycling programs. Various perspectives can be reviewed at: <https://cupe.ca/sites/cupe/files/asset-recyclinglyx-v2.pdf>; http://www.rccao.com/news/files/RCCAO_Infrastructure-Investment-Study_Dec2014.pdf
- 9 Kitchen, H. and Slack, E. (2016). More Tax Sources for Canada’s Largest Cities: Why, What, and How? *IMFG Papers on Municipal Finance and Governance No. 27*. University of Toronto. P. 19

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- 10 In one recent case, in 2016 the Mayors of local municipalities in Metro Vancouver wrote a letter to the federal government asking it to review the impacts of the provincially supported George Massey Tunnel replacement. The mayors oppose the provincial plan for the project, believing that the province is proceeding without sufficient consideration of all the available options.
 - 11 It is recommended that the federal government consider providing financial support of between one-third and one-half of the cost of conducting a full business case assessment. This will provide financial support to offset the cost of conducting a rigorous business case while at the same time ensuring that the project sponsor bears some risk in terms of the costs of proposing new projects.
 - 12 For a brief description of the American Metropolitan Planning Organization model, see: <http://www.ampo.org/about-us/about-mpos/>
 - 13 See ReNew Canada Magazine's Top 100 Infrastructure Project List at: <http://top100projects.ca/>. The list includes four mega-projects being planned and delivered by federal departments and crown corporations.
 - 14 For more information on the U.K. Major Projects Leadership Academy, see: <http://www.sbs.ox.ac.uk/programmes/execed/custom/clients-and-case-studies/major-projects-leadership-academy>
 - 15 Making the business case data more accessible in a standard format responds to a common challenge with project evaluation in Canada. All too often, business cases for mega-projects are conducted but the evidence is not widely publicized or used in public debates about the project or to inform political decisions.
 - 16 For more information on the National Executive Forum on Public Property, see: <http://www.publicpropertyforum.ca/>
 - 17 See Public Accounts Committee Report on Delivering major projects in government: <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmpublic/710/710.pdf>
 - 18 In First Nations communities where the federal government plays a significant role in planning and funding infrastructure, First Nations leaders have called for expedited federal investment and improved nation-to-nation relationships to maximize the local benefits of infrastructure spending.
 - 19 The recent case of conflict between the municipal and provincial governments in British Columbia over the merit of the George Massey Tunnel replacement project is the latest in a long list of projects where there are differing perspectives between various levels of government and with First Nations. Other examples include the twinning of the Port Mann Bridge and Hwy. 1 widening in Greater Vancouver.
 - 20 The details of PPP Canada's operating budget can be found in the agency's annual report: <http://www.p3canada.ca/-/media/english/annual-reports/files/2014-2015%20annual%20report.pdf>

Minister of Finance



Ministre des Finances

Ottawa, Canada K1A 0G5

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Mr. Phil Rubinoff
Chair
Residential and Civil Construction Alliance of Ontario (RCCAO)
13-25 North Rivermede Road
Vaughan, ON L4K 5V4

Dear Mr. Rubinoff and Co-signatories:

Thank you for your correspondence of March 10, 2016, and for including the report entitled, *Creating an Effective Canadian Infrastructure Bank*, a copy of which was also referred by the Office of the Minister of Innovation, Science and Economic Development, the Honourable Navdeep Bains. I appreciate your submitting your input for Budget 2016. Please excuse the delay in replying.

I was interested to read the report regarding a new Canadian Infrastructure Bank, which is evidently built on considerable knowledge and expertise. I understand that your executive staff and Professor Siemiatycki have met with Finance and Infrastructure officials regarding this report, and I look forward to continued engagement in this area. I consider your views in this policy area to be an important part of shaping the decisions that will help our economy flourish.

Thank you for taking the time to share your thoughts and participating in the pre-budget consultation process.

Yours sincerely,

The Honourable Bill Morneau, P.C., M.P.

Canada

