

PPP Development Opportunities in the U.S. and Canada

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AGENDA

History of PPPs in Canada

Canadian Model – Key Success Factors

Canadian Primary Market

Canadian Secondary Market

Overview of Infrastructure Opportunities in the U.S.

PPPs: Various Models and Regulators

A View from Washington

Q&A

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PPP DEVELOPMENT OPPORTUNITIES IN THE UNITED STATES & CANADA

OVERVIEW

1. History of PPPs in Canada
2. Canadian Model – Key Success Factors
3. Primary Market
4. Secondary Market

HISTORY OF PPPs IN CANADA

- Canada has enjoyed significant success with the PPP model over the past 15 years
- The types of P3 Projects have varied considerably in Canada, although they have been dominated, in terms of number, by social infrastructure projects such as hospitals, courthouses, detention centres.
- Large civil projects, such as roads and transit projects were part of early PPPs in Western Canada and have become extremely prevalent in today's market replacing social infrastructure as the dominant asset class in the country

HISTORY OF PPPs IN CANADA

CANADIAN PPPs

- Accommodations - 7
- Education - 19
- Energy - 10
- Government Services - 4
- Health - 93
- Information Technology - 4
- Justice - 22
- Recreation & Culture - 16
- Transportation - 68
- Water & Wastewater - 18

HISTORY OF PPPs IN CANADA

CANADIAN PPPs BY PROVINCE AND TERRITORY

➤ While the Provinces of Ontario and British Columbia have been the most active, there has been significant activity throughout Canada

- ❑ British Columbia – 43
- ❑ Alberta – 19
- ❑ Saskatchewan - 9
- ❑ Manitoba – 5
- ❑ Ontario – 137
- ❑ Quebec – 18
- ❑ New Brunswick – 13
- ❑ Newfoundland and Labrador – 2
- ❑ Nova Scotia – 3
- ❑ PEI – 0
- ❑ Northwest Territories – 3
- ❑ Nunavut – 2
- ❑ Yukon - 0

CANADIAN MODEL – KEY SUCCESS FACTORS

A review of the history of PPPs in Canada has identified a number of key factors to success:

- Political champions
- Favourable legislative environment
- P3 procurement agencies
- Risk identification/allocation
- Lifecycle maintenance
- Competitive procurements
- Consistency among provinces and federal government
- Procurement process efficiencies
- Transparency and fairness
- Public engagement
- Reliability, Commitment to the model

CANADIAN MODEL – KEY SUCCESS FACTORS

PARTICIPANTS

- Lenders, Developers/Equity Sponsors, Contractors and Operators
- Major projects have driven participation by international market leaders
- Early projects attracted international lenders including European and Japanese banks
- Current short-term financing dominated by Canadian banks with long-term financing generally provided by Canadian LifeCo's (although trend is again towards broader international participation)
- Developers – initially, Australian/English developers, expanded to Spanish, French and other international participants
- Recent trend has been to construction contractor led consortiums

CANADIAN MODEL – KEY SUCCESS FACTORS

PARTICIPANTS

- Limited number of Canadian infrastructure developers
- Social infrastructure – dominated, particularly in Ontario, by local contractors with strong connections to M&E subcontractors
- Large civil projects – significant activity and success by international participants including large number of Spanish companies. More recently significant involvement by U.S. contractors
- Operators – social infrastructure is based on large international participants, particularly U.S., English and French

PRIMARY MARKET OPPORTUNITIES

ONTARIO

- Latest budget increased infrastructure spending by \$30B over remainder of 13 year infrastructure plan – primarily transportation and transit projects
- \$156B over 10 years
 - ❑ \$56B public transit
 - ❑ \$26B highway
 - ❑ \$20B Hospitals
 - ❑ \$16M Schools
 - ❑ Balance – other

PRIMARY MARKET OPPORTUNITIES

FEDERAL GOVERNMENT

- 12 year \$186B infrastructure plan
- Canadian Infrastructure Bank
 - ❑ Bank will work with other levels of government and procurement agencies
 - ❑ Bank will be functional at the end of 2017, early 2018
 - ❑ Goal: Use federal support to bring in further private capital to build more infrastructure
 - ❑ Projects: public transit, trade, transportation, green infrastructure, projects with revenue potential (get projects built in association with private sector partners)
 - ❑ Not competing with private financing where private sector can provide financing
 - ❑ Potential for increase in demand-risk projects

PRIMARY MARKET OPPORTUNITIES

OTHER

- Water/Wastewater
- PPPs for Existing Buildings
- Other Provinces
- Municipalities
- First Nations

PRIMARY MARKET OPPORTUNITIES

CHALLENGES

- How to make smaller projects attractive for the P3 model?
- How can non-federal/provincial government bodies, such as Cities and Municipalities, procure by way of the P3 model?
- What new asset classes can utilize the P3 model?

SECONDARY MARKET

➤ Constraints

➤ Restrictions on transfer

- Restrictions on assignment, transfer, etc of any interest in the Project Agreement (and any agreement entered into in connection with the Project Agreement)
- Restrictions on acquisition of Direct or Indirect Power or Control
- Restrictions on Changes in Ownership of Project Co or any Control Party
- Generally:
 - restrictions against transfer to Restricted Persons
 - the authority's and Province's reputation and integrity must not be compromised
 - the authority's consent required

➤ Upside sharing

- The authority is entitled to receive a % share of:
 - any Excess Equity Gain arising from a Change in Ownership of Project Co; and
 - the amount from the proceeds of a sale of any of Project Co's assets to a third party (incl. assignment, transfer, etc) that is equal to the amount that would have been payable (as above) if such sale had proceeded as a Change in Ownership of Project Co

➤ Opportunities

THE ROLE OF EQUITY AND FINANCIAL PLAYERS IN PPP (P3)

Thank you.

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Overview of Infrastructure Opportunities in the U.S.

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Infrastructure in the United States

- U.S. Infrastructure currently ranked 16th in the world
 - Overall ASCE “report card” rating of **D+**
- Current estimates are that the investment backlog in U.S. infrastructure exceeds \$4.5 trillion
 - Increase of more than 25% since four years ago
 - Estimated available funding from all current sources suggests a minimum \$2 trillion deficit in current needs

Energy

- The era of utility disaggregation and independent power has addressed many of the funding needs for electric power generation
- But the U.S. transmission system still needs to be addressed
 - Most transmission and distribution lines exceed their 50-year useful life
 - Power grids are mostly at full capacity (or beyond)
 - Bottlenecks between the major grids
 - Adapting to distributed generation technologies stretching the abilities of existing infrastructure
- Estimated funding needs for electric transmission and distribution estimated at \$177 billion



Schools

- Recent and projected increase in last 20 years of school-age population has strained system that had been reduced or neglected in prior years
 - Almost 1/4 of all schools with permanent buildings were rated as having fair or poor infrastructure
 - Almost 1/3 of all schools have temporary buildings, of which almost half are rated as fair or poor
- Funding shortfall is currently estimated at over \$180 billion per year



Planes ...

- Annual investment gap of \$3-4 billion is projected for aging or under-sized airport facilities for the next 25 years
- Much of the negative rating applies to the ongoing need to update the current Air Traffic Control System, currently scheduled for 2025



Trains ...

- Rail transportation has the most positive rating, largely because of investments by the privately-owned freight rail industry
 - Short line and regional freight rail remain significantly underfunded with \$5 billion backlog
 - Passenger (Amtrak) infrastructure reliant on government funding, with \$25 billion+ funding needs
- Urban transit/commuter rail problems stem from backlogs on aging infrastructure and needs for new or expanded transit systems
 - \$90 billion+ backlog to address outdated or over-capacity transit infrastructure
 - High cost of adding transit to heavily populated areas, questionable returns on adding “last mile” and logistical challenges of adding “first mile”
 - Challenge of “moving people” vs. “moving equipment”



Automobiles ...

■ Condition

- 20% of highways in poor condition
- 32% of urban roads in poor condition
- 27 States have de-paved roads due to inability to maintain paved roads
- 9% of bridges deemed structurally deficient
- 39% of bridges have exceeded their original 50-year design life

■ Capacity

- 40% (by miles) of all urban interstate highways congested
- Almost ¼ of all bridges either structurally deficient, functionally obsolete or both

■ Funding

- \$836 billion backlog
- Gasoline tax not adjusted since 1993



And Marine

- Port facilities need additional dredging for new larger vessels
 - Most East Coast ports unable to deal with larger vessels that can be accommodated by the Panama Canal Expansion
- Port transportation links (roads/rail) are outdated and undersized
- Majority of inland waterway locks and dams have exceeded their 50-year design life
- Estimated funding needs of \$22 billion



Water everywhere...

- Average age of dams is 56 years
 - 70% of dams will exceed 50 years by 2025
 - Do not include modern features to address earthquake and severe storm risk
 - Approximately 15,500 dams (1/6 of total) currently classified as high-hazard potential
 - Almost 12,000 additional dams would be categorized as such except that there is no expected loss of life arising from failure
- Nearly 2/3 of Americans live within a county protected by one or more levees, the majority of which are more than 50 years old
 - Estimated that 5% are high risk and 15% are moderate risk of failure
- Funding needs estimated at \$125-\$150 billion



But what to Drink?

- Water pipes mostly laid in first half of 20th century with lifespan of 75-100 years now due
 - More than 240,000 water main breaks per year
 - Pipes require careful attention to avoid contaminants in water (i.e., Flint, MI)
- More than 240 million Americans rely on wastewater treatment and sewer systems for potable water or disposal of wastewater into the environment
 - Expected to increase by more than 20% in next 15 years
 - EPA estimates between 23,000-75,000 sanitary problems per year due to age and capacity issues
- Largely decentralized water systems
 - Difficulty of smaller systems to maintain and upgrade
 - Inexperienced and inefficient management
- Funding needs estimated at \$1.25 trillion



The PPP Challenge

- Challenge is not only how to source and allocate money
- “Procurement risk in the U.S. has more political risk than in any other developed country.” (Recent quote from major PPP sponsor)
 - Complex web of local, State and federal authority
 - Some experiences in projects never reaching closing
 - Some experiences in “failed” projects
 - Intellectual and political opposition to concept of private investment in infrastructure
- Need for innovation to offset higher funding costs of PPP
 - Bundling of smaller facilities to achieve scale across governmental authorities
 - Bundling private and public objectives
 - New logistics or technology
- “PPP is the worst method for investing in infrastructure, except for all the others.” (apologies to Winston Churchill)

PPPs: Various Models and Regulators

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PPPs: Various Models and Regulators

- Public Private Partnership (PPP or P3) refers to long-term partnering relationships between the public sector and the private sector to deliver services, particularly services that require the development of new physical assets.



PPPs: Various Models

1. Traditional Procurement of Assets: Construction risk alone borne by private sector; Design, Finance, and O&M provided by public sector
2. Design-Build-Operate: Public sector provides funds for design and build; Construction & Design risk on private sector; Private operator paid a management fee based on performance or availability of asset
3. Design-Build-Finance-Operate: Private sector incurs design, construction, finance, and O&M risk; Requires a revenue stream (e.g., toll concession, shadow toll concession, availability payment, or other fees); Risk of use borne by private sector
4. At end of term for D-B-O and D-B-F-O, asset may transfer to public sector
5. Public Sector funds initial exploration of resource; Private Sector then bids on and constructs assets to utilize resource (e.g., public money used to fund study of wind resource, solar resource, or geothermal resource, then private sector funds and builds power plants to utilize available resource with or w/o transfer of plants at end of term)
6. Joint Venture between Private Sector and Public Sector (e.g., public sector contributes right of way; private sector builds transmission line; joint ownership and sharing of revenues)

PPPs: Various Regulators

- Regulatory Authorizations of PPP Projects Vary by Industry, but are Found in the Federal Government and Several State Governments in the U.S.
- U.S. Department of Transportation Federal Highway Administration (USDOT FHA) publishes a newsletter that encourages public-private partnerships (P3s) as contractual agreements between a public agency and a private entity that allow for greater private participation in the delivery of transportation projects

PPPs: Various Regulators

- U.S. Bureau of Reclamation is expected to issue a request for information (RFI) in May 2017 to discuss ways the agency can work with the private sector to identify alternative finance and delivery models and will also hold a Water Infrastructure and Alternative Financing Forum on May 9, 2017 Denver, CO.

PPPs: Various Regulators

- On May 13, 2013, the U.S. Department of Energy (DOE) announced “H2USA – a new public-private partnership focused on advancing hydrogen infrastructure to support more transportation energy options for U.S. consumers, including fuel cell electric vehicles (FCEVs). The new partnership brings together automakers, government agencies, gas suppliers, and the hydrogen and fuel cell industries to coordinate research and identify cost-effective solutions to deploy infrastructure that can deliver affordable clean hydrogen fuel in the United States.”

PPPs: Various Regulators

- Enacted in 2015, the Texas Facilities Commission administers the Public and Private Facilities and Infrastructure Act, Chapter 2267 of Texas Government Code.
- Chap 2267 applies to Qualifying Projects, which are defined as: "(i) any ferry, mass transit facility, vehicle parking facility, port facility, power generation facility, fuel supply facility, oil or gas pipeline, water supply facility, public work, waste treatment facility, hospital, school, medical or nursing care facility, recreational facility, public building, technology facility, or other similar facility currently available or to be made available to a governmental entity for public use, including any structure, parking area, appurtenance, and other property required to operate the structure or facility and any technology infrastructure installed in the structure or facility that is essential to the project's purpose; or (ii) any improvements necessary or desirable to real property owned by a governmental entity."
- Examples: Port of Beaumont terminal is a PPP between the Port of Beaumont Navigation District of Jefferson County, Texas and Jefferson Energy Companies. (Jefferson Energy Companies is majority-owned by Fortress Transportation and Infrastructure Investors Ltd, which is managed by Fortress Investment Group.

PPPs: Various Models and Regulators

- Resources are available:
 - The National Council for Public-Private Partnerships at www.NCPPP.org
 - US Department of Transportation, Federal Highway Administration, P3s Newsletter, at www.fhwa.dot.gov/ipd/p3/

A View from Washington

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A View from Washington

- Trump \$1 trillion infrastructure plan
- "Buy American and Hire American"
- What would qualify as an infrastructure project?
- Campaign white paper
 - Federal tax credits for private investors gives them back 82 percent of their equity
 - Concern from rural Republicans and other critics
- Bipartisan agreement? Dems' and Bernie's \$1 trillion infrastructure pledge

A View from Washington

- Infrastructure council: Richard LeFrak and Steven Roth
- Congressman John K. Delaney (Dem, MD-6) filed two infrastructure bills
 - Partnership to Build America Act, creates American Infrastructure Fund (AIF).
 - One-time bond sale to U.S. corporations looking to repatriate a portion of their international earnings
- Infrastructure 2.0 Act, creates the American Infrastructure Fund and provides revenues to expand the Highway Trust Fund using the repatriation of overseas profits at 8.75%

A View from Washington

- Questions:
 - Why involve private investors at all?
 - How does it finance investment without a revenue stream?
 - How much of this investment wouldn't have taken place anyway?

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