



City of Regina

Wastewater Treatment
Plant Expansion &
Upgrade Project

Value for Money Report

July 24, 2014

Table of contents

- 1 Introduction 1
 - 1.1 Introduction..... 1
 - 1.2 Limitations 1
- 2 Selection of delivery model..... 2
 - 2.1 Delivery model assessment..... 2
 - 2.2 Selection of delivery model 3
- 3 Summary of procurement process 4
 - 3.1 Procurement process overview 4
 - 3.2 Procurement process result 4
- 4 Value for money 6
 - 4.1 Preliminary value for money estimate 6
 - 4.2 Final value for money estimate 6

Tables

- Table 1 – P3 Policy – Outcome of Delivery Model Assessment 2
- Table 2 – Procurement Process Overview 4
- Table 3 - Final Value for Money Estimate (NPV, \$thousands) 6
- Table 4 - Impact of PPP Canada Contribution on Final Value for Money (NPV, \$thousands)..... 7

Figures

- Figure 1 – Final VFM From City's Perspective 7

Appendices

Appendix A – Calculation of total cost on a net present value basis of financial offers

1 Introduction

1.1 Introduction

The City of Regina has recently signed the design-build-finance-operate-maintain (DBFOM) project agreement for the Regina Wastewater Treatment Plant Upgrade Project (the “Project”). This report briefly recaps the process that led to the use of a P3 model for the Project, outlines the procurement process used, and presents the “final value for money” estimate corresponding to the successful proponent’s proposal to the City.

1.2 Limitations

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2 Selection of delivery model

2.1 Delivery model assessment

The Design-Build-Finance-Operate-Maintain (DBFOM) delivery model was selected by the City for the Project based on a delivery model assessment conducted in 2012. The analysis process is documented in the January 22, 2013 report entitled “*City of Regina – Wastewater Treatment Plant Expansion & Upgrade Project: Summary of Delivery Model Assessment*”, which was posted on the City website¹ in early 2013, and which is referred to as the “Delivery Model Assessment Report” herein.

Part VI of The Regina Administration Bylaw, No. 2003-69, (referred to herein as the P3 Policy) states that a “delivery model assessment” includes one or more of the following types of assessments: i) a screening assessment; ii) a strategic assessment; and iii) a value for money assessment. The table below summarizes the outcomes of the delivery model assessment conducted for the Project.

Table 1 – P3 Policy – Outcome of Delivery Model Assessment

Assessment Level	Description	Possible Outcomes	Project Outcome
1 - Screening Assessment	High-level comparison of project characteristics against criteria to assist in determining potential suitability of a project for P3 delivery.	<ol style="list-style-type: none"> 1. Flag as potential P3 project 2. Flag for traditional procurement (or other non-P3 model) 	<p>The Project was flagged as a potential P3 project by screening it against 22 City criteria.</p> <p>The assessment therefore advanced to level 2.</p>
2 - Strategic Assessment	A more detailed examination of the risks, costs, market of service providers, and objectives and constraints to identify, at the strategic level, if a project should be procured as a P3, which P3 delivery model(s) is most suitable, and whether or not further assessment is justified.	<ol style="list-style-type: none"> 1. Recommendation for traditional procurement (or other non-P3 model) 2. Recommendation to procure project as a P3, including recommended P3 delivery model 3. Recommendation to undertake Value for Money Assessment prior to deciding on delivery model 	<p>The DBFOM model was determined to be the preferred model on a strategic basis.</p> <p>The City elected to undertake a Value for Money assessment prior to deciding on the delivery model.</p> <p>The assessment therefore advanced to level 3.</p>
3 - Value for Money Assessment	An extension of the Strategic Assessment, including quantification of project risks and a preliminary comparison of the relative cost of traditional procurement and P3 procurement through cash flow modelling.	<ol style="list-style-type: none"> 1. Recommendation for traditional procurement (or other non-P3 model) 2. Recommendation to procure project as a P3, including recommended P3 delivery model 	<p>The DBFOM model was estimated to offer a positive “preliminary Value for Money” either with or without a PPP Canada contribution.</p>

¹ <http://www.regina.ca/residents/water-sewer/.media/pdf/appendix-a-deloitte-summary-model.pdf>

2.2 Selection of delivery model

Based on the delivery model assessment, the City elected to make an application to PPP Canada for support of the Project, delivered as a DBFOM, through the P3 Canada Fund. At the February 25, 2013 meeting of City Council, the DBFOM delivery model for the procurement of the Project was approved.

3 Summary of procurement process

3.1 Procurement process overview

The City implemented a procurement process in accordance with the P3 Policy to select a contractor to provide the DBFOM package to the City. Key milestones and outcomes of the procurement process are summarized below.

Table 2 – Procurement Process Overview

Stage	Key dates	Outcomes
Request for Qualifications (RFQ)	<ul style="list-style-type: none"> RFQ issued May 14, 2013 Qualifications received on or before June 25, 2013 City announced shortlist of proponent teams October 16, 2013 	<ul style="list-style-type: none"> Ten responses received Responses reviewed and shortlisted to three proponents Independent fairness advisor attested that “appropriate procurement practice was used”
Request for Proposals (RFP)	<ul style="list-style-type: none"> RFP issued October 16, 2013 to three proponents Final proposal submissions received May 22, 2014 City announced Preferred Proponent May 29, 2014 	<ul style="list-style-type: none"> Three compliant technical proposals received Preferred Proponent identified based on lowest net present value of costs to the City Independent fairness advisor attested that “procurement process was fair for all proponents”
Closing	<ul style="list-style-type: none"> Project agreement signed (“financial close”) July 3, 2014 	<ul style="list-style-type: none"> Preferred Proponent (at this point considered to be the “Successful Proponent”) authorized and required to commence services defined in project agreement.

In addition, the Preferred Proponent elected to enter into an early works agreement with the City, which permitted the Preferred Proponent to commence some construction work prior to signing of the project agreement. Some work was completed under the early works agreement prior to July 3, 2014.

3.2 Procurement process result

In accordance with the RFP, the Preferred Proponent for the Project was identified by calculating the total cost on a net present value (NPV) basis of the financial offer presented by each proponent in their final proposal submissions. A description of the form of financial offers, and the calculation procedure, is provided in Appendix A.

The proponent with the lowest cost financial offer on a net present value basis (the “Preferred Proponent”) was EPCOR Saskatchewan Water Partners². The net present value of the Preferred Proponent’s financial offer was \$333,658,453.

With the project agreement now signed, the Preferred Proponent’s financial offer is a binding schedule of payments that the City will make to EPCOR Water Prairies Inc.³ (the “Successful Proponent”), in exchange for provision of the DBFOM services.

² This is the name of the Preferred Proponent at the time of final proposal submission.

³ Prior to execution of the project agreement, the legal name of the DBFOM contractor was established as EPCOR Water Prairies Inc.

4 Value for money

4.1 Preliminary value for money estimate

The value for money (VFM) assessment entails the comparison of the net present value of the risk-adjusted project cost estimate for the traditional design-bid-build (DBB) delivery model with that for the DBFOM delivery model. Preliminary value for money refers to VFM that is estimated prior to the execution of a procurement process and award of a contract.

As noted in Table 1, a preliminary VFM assessment was done as part of the delivery model assessment in 2012. It was estimated at that time that the DBFOM delivery model would offer VFM, as compared to a DBB approach, of 6.9%⁴. When the benefit to the City of a PPP Canada contribution was factored in, the estimated VFM was 15.5%⁵.

4.2 Final value for money estimate

Final value for money refers to an update to a preliminary VFM estimate that is done after the conclusion of a procurement process. Final VFM takes into account any changes in estimated costs and actual costs that may have occurred in the intervening time, including the replacement of estimated DBFOM costs with the costs of the Successful Proponent's financial offer.

The net present value of project costs if delivered through DBB are estimated using the financial model developed for the preliminary VFM assessment, with updates to reflect actual costs to date and updated projections. The estimated net present value of project costs expected through delivery by DBFOM is a combination of the payments to be made to the Successful Proponent, and other costs that are borne directly by the City.

The comparison between the estimated risk-adjusted project cost for the DBB delivery model and DBFOM delivery model is as follows:

Table 3 - Final Value for Money Estimate (NPV, \$thousands)

	DBB	DBFOM
Total Project Base Cost	409,694	364,720 ⁶
Retained Risk	61,319	12,473
Transferred Risk	794	Included in base cost
Total Risk-Adjusted Project Cost	471,807	377,192
"Project VFM" (\$)		94,614
"Project VFM"		20.1%

⁴ Source: Table 9 of Delivery Model Assessment Report

⁵ Source: Table 10 of Delivery Model Assessment Report

⁶ The sum of the net present value of the Preferred Proponent's financial offer and net present value of City's other costs

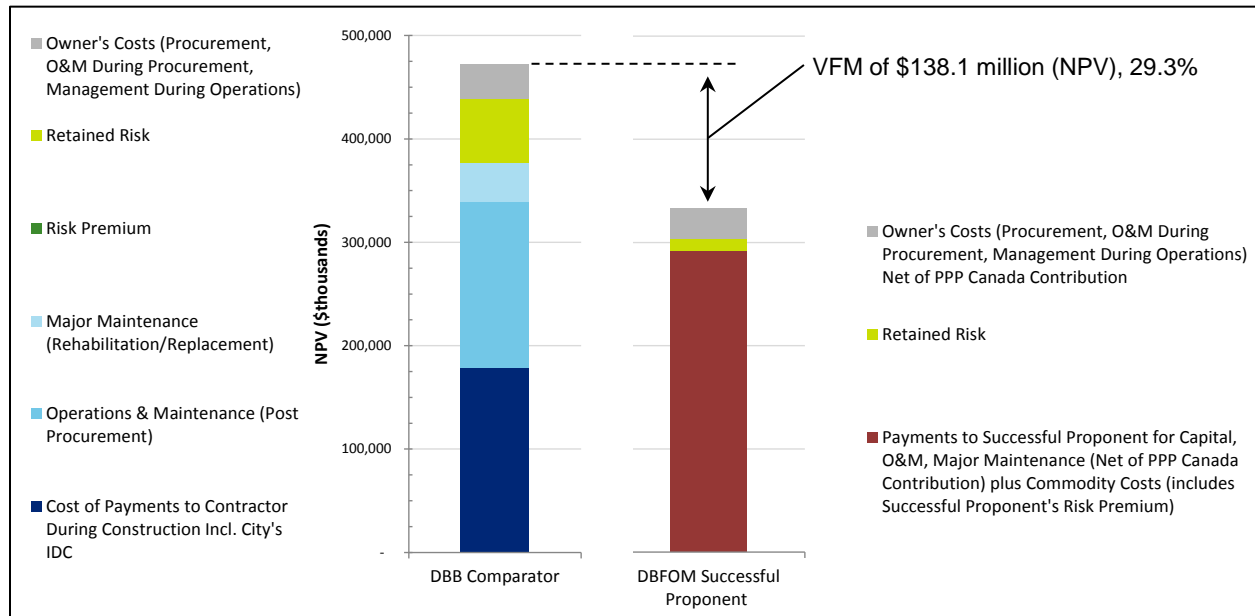
This is the “Project VFM” that does not take into account the benefit of a contribution from PPP Canada. The VFM from the City’s perspective, however, *does* take a PPP Canada contribution into account. The contribution at 25% of eligible costs as defined by PPP Canada is estimated to be \$48.2 million at the time of construction completion⁷, or \$43.5 million in net present value terms. The table below presents the VFM from the City’s perspective.

Table 4 - Impact of PPP Canada Contribution on Final Value for Money (NPV, \$thousands)

	DBB	DBFOM
Total Project Base Cost	409,694	364,720
Retained Risk	61,319	12,473
Transferred Risk	794	Included in base cost
Total Risk-Adjusted Project Cost	471,807	377,192
PPP Canada Grant		43,508
Total Cost Net of PPP Canada Grant	471,807	333,684
“VFM from City’s Perspective” (\$)		138,123
“VFM from City’s Perspective”		29.3%

The chart below illustrates the final VFM estimate.

Figure 1 – Final VFM From City's Perspective



In summary, it is estimated that the Project as executed by the Successful Proponent will result in savings in net present value terms of approximately \$138 million. Approximately \$44 million of the saving is attributable to the PPP Canada contribution.

⁷ PPP Canada committed 25% of eligible costs, up to a maximum cap of \$58.5 million, based on the upper end of the capital cost estimate (i.e. plus 15 percent). Because the contractor’s actual capital cost is less than the upper end of the estimate, the estimated actual PPP Canada contribution is less than the cap.

Appendix A – Calculation of total cost on a net present value basis of financial offers

The form of the financial offers was defined by the City in the RFP, and consists of the following payments:

- Monthly payment stream over the term of the project agreement (August 2014 through June 2044) consisting of:
 - Capital payments⁸ (identical monthly payments stated in nominal dollars)
 - O&M payments⁹ (monthly payments for operations and maintenance stated in 2014 dollars)
 - Renewal payments (monthly payments with timing as needed for periodic planned rehabilitation or replacement stated in 2014 dollars)
- Total city funding¹⁰, calculated by multiplying the amount of one full month's capital payment by 159.
- Commodity consumption rates, consisting of guaranteed maximum unit rates of consumption of electricity, natural gas, and city water per ML of wastewater treated.

In accordance with the RFP, the total cost on a net present value basis was determined by calculating the sum of the net present values (as at the financial offer submission date of May 22, 2014) of:

- The capital payments;
- The O&M payments, after first adjusting each payment for inflation;
- The renewal payments, after first adjusting each payment for inflation;
- The cost of commodities, after first calculating commodity consumption based on an projected monthly wastewater flow, and after adjusting current commodity prices¹¹ for inflation

The discount rate used to calculate net present values is 4.029%, based on the City's estimated cost of long term borrowing as of May 20, 2014. The inflation assumption used is 1.999%, based on bond yields as of May 20, 2014. In accordance with the RFP, the proponents were notified of the discount rate and inflation rate on May 20, 2014.

⁸ The capital payments are the repayment to the contractor of the amount of the capital cost not paid through the milestone and substantial completion payments (i.e. the repayment of the contractor-provided financing). The capital payments are not subject to inflation.

⁹ The O&M payments consist of three sub-payments: a payment for O&M of the existing WWTP until the completion of construction, a fixed payment for O&M of the upgraded WWTP after construction, and a variable payment (based on wastewater flow through the WWTP) for O&M of the upgraded WWTP after construction

¹⁰ The city funding is the amount of the capital cost that will be paid to the contractor during the construction period through one milestone payment and the substantial completion payment.

¹¹ The current commodity prices used were stated in the RFP

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