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PUBLIC RESOURCES ADVISORY GROUP

MEMORANDUM TO: Lee A. Helgerson, Oregon Department of Transportation ("ODOT")

FROM: Public Resources Advisory Group ("PRAG")

SUBJECT: Columbia River Crossing First Phase Project – Range of Estimated Project Funding Capacity of Net Toll Revenues Based on Investment Grade Traffic and Revenue Projections and Revised Net Toll Revenues

DATE: December 13, 2013

PURPOSE OF ANALYSIS

This memorandum was prepared to summarize the results of PRAG's funding capacity analysis for an Oregon-led Columbia River Crossing ("CRC") First Phase Project, based on the following inputs and assumptions:

- Updated projections of net toll revenues provided by Parsons Brinckerhoff ("PB") on December 11, 2013, which are based on the results of the investment grade traffic and revenue forecast produced by CDM Smith and now take into account the cost impacts of an Oregon-managed tolling operation (the PB Analysis);
- Project cash flow requirements provided by CRC project staff in August 2013, which cash flow requirements are subject to further refinement;
- An assumed TIFIA loan amount of $900 million, consistent with limiting the TIFIA loan to approximately 33% of the total CRC First Phase Project costs for the Oregon-led project as of August 2013;
- Adjustments to TIFIA principal amortization assumptions to increase early amortization, consistent with recent TIFIA term sheets and with the somewhat more flat net revenue stream provided for in the PB Analysis;
- Revised interest rate assumptions such that the interest rate sensitivity analysis is spread off a current market (as of December 11, 2013) scenario, to provide an estimate of net project funding capacity available in the current market versus reductions in funding that would occur should rates increase from current market levels; and
- All other assumptions are outlined in Exhibit B.

The results of these analyses are included as Exhibit A to this memorandum. The assumptions of our analysis are attached as Exhibit B. Graphs depicting the debt service structures of the three bonding scenarios at current market rates plus 100 basis points (1.0%) are included as Exhibit C.

SUMMARY OF RESULTS

Based on the above parameters and the assumptions presented in Exhibit B, the scenarios analyzed provide a range of net project funding of between approximately $1.35 billion (state-backed toll revenue bonds) and approximately $1.57 billion (TIFIA plus state-backed toll revenue bonds) under current market conditions and assuming the expenditure of pre-completion tolls on a pay-as-you-go basis as discussed below.

INFORMATION SOURCES AND MAJOR ASSUMPTIONS

The following is a brief discussion of the inputs and assumptions.

- ***Net Toll Revenue*** – PRAG's analysis was based on the PB Analysis, which itself is based on CDM Smith's investment grade traffic and revenue study, which assumes there are multiple toll increases during the pre-completion period and one, large toll increase at completion. All toll-backed bonds and TIFIA loans are assumed to be paid after the funding of operations and maintenance ("O&M") expenses but before repair and replacement ("R&R") reserve deposits, both as projected in the PB Analysis. This approach is consistent with the debt structure used for Washington's SR 520 project.
- ***Project Sources and Uses*** – CRC project staff provided revised project funding sources and uses that included timing of required bond proceeds for the Oregon-led CRC First Phase Project in August 2013. The CRC project delivery team is refining the project cash flow requirements, which will affect the timing and/or the amounts of the project funding needs. Such changes in funding needs could have an impact on the funding capacity of the net toll revenue stream estimated in the PB Analysis due to potential changes in when borrowing is required and potentially the size of the TIFIA loan relative to other federally provided funding sources. Whether such changes will decrease or increase the theoretical funding capacity of the net toll revenue stream estimated in the PB Analysis is not known.
- ***Bond Structuring Assumptions*** – Bond structuring assumptions, detailed in Exhibit B, are largely identical to those used in the September 2nd Analysis, with the following exceptions.
  - ***Interest Rates*** – PRAG has revised certain interest rate assumptions to reflect current market rates as of December 11, 2013, and conducted an interest rate sensitivity analysis showing the impact on net project funding of increases of between 50 bps (0.50%) and 150 bps (1.50%). For all current market rates, we assumed the relevant final maturity yield, rounded up to the nearest 0.25%, and we further increased the interest rate assumptions for non-TIFIA components of the TIFIA scenarios to reflect the fact that these bonds would consist of more back-loaded structures (noted below) and will not be issued until 2021, to assess the ability of the financing scenarios to withstand greater interest rate risk. This results in an increase in the TIFIA loan interest rate assumption to 4.00% (from the 3.75% assumed for the September 2nd Analysis) and tax-exempt bond interest rates as detailed in Exhibit B. While tax-exempt interest rates generally are somewhat lower than rates used for the September 2nd Analysis, PRAG conservatively left the 100% state-backed toll revenue bond scenario interest rates unchanged in the current analysis.
  - ***Pre-Completion Tolling*** – As with the September 2nd Analysis, we assume that revenues from precompletion tolls will be used to pay O&M, and fund deposits to an O&M reserve, R&R reserve, and a rate stabilization fund during the pre-completion period, all as presented in the PB Analysis, without the "haircut" applied by CRC staff for the September 2nd Analysis, since the PB Analysis now takes into account an Oregon-managed tolling operation. These amounts are summarized in the results in Exhibit A as "PAYGO from Pre-Completion Tolling," and in all cases provide $267.4 million of project funding from net toll revenues after all reserve deposits during the pre-completion period. It is important to note that should tolling be delayed or net toll revenue not meet the levels projected, borrowing would need to be accelerated, thus further reducing funding capacity beyond the potential reduction in pre-completion tolls.
  - ***TIFIA Loan Amount*** – Based on the revised Oregon-led CRC First Phase Project cost of $2.71 billion used for the September 2nd Analysis, PRAG reduced the TIFIA loan amount to $900 million, representing approximately 33% of the project costs. While MAP-21

theoretically permits TIFIA loans up to 49% of the project cost, loans exceeding one-third of project costs have not been approved. Consequently, we constrained the TIFIA loan amount to this lower percentage associated with successful TIFIA applications.

- ***TIFIA Loan Amortization*** – Based on further investigation into recently-closed TIFIA loans, PRAG adjusted the annual principal amortization on the TIFIA loan from a nominal amount equal to 0.125% of the loan for more than 15 years (as was assumed for the September 2nd Analysis) to an amortization resulting in TIFIA debt service profile which is proportional to available net revenues. This change reflects a structure that better mitigates interest rate and revenue-related risks and their potential constraints on the future issuance of completion toll revenue bonds based on recent TIFIA term sheets.
- ***State-Backed Bond Amortization*** **–** In previous analyses, we had constrained the final maturity of statebacked toll revenue bonds to the State of Washington's legal limit of 30 years. Since Oregon law permits a 40 year final maturity, we revised that assumption accordingly for the September 2nd Analysis as well as for this analysis.

INTEREST RATE SENSITIVITY ANALYSIS

As with the September 2nd Analysis, PRAG also analyzed the impact of rising interest rates on each of the four bonding structures. We analyzed the impact of interest rate increases over those assumed for the current market analysis of 50 bps (0.50%), 100 bps (1.00%), and 150 bps (1.50%) for each of the three bonding scenarios. The results of this analysis are included in Exhibit A.

As the table in Exhibit A indicates, an increase in interest rates of 50 bps over our current market assumption, or 0.50%, reduces net project funding capacity by between $63 million for the toll revenue bond ("TRB") and TIFIA structure and $90 million for the state-backed toll revenue bond and TIFIA structure, with total dollar reductions being greater for the scenarios that generate more overall net project funding. An increase in interest rates of 100 bps, or 1.0%, reduces net project funding capacity by between $125 million for the TRB and TIFIA structure and $172 million for the state-backed toll revenue bond and TIFIA structure, while an increase of 150 bps, or 1.50%, reduces net project funding capacity by between $178 million for TRB and TIFIA and $245 million for state-backed toll revenue bond and TIFIA structure.

CONCLUSION

Based on the PB Analysis, the toll revenue funding capacity is estimated to range between $1.35 billion and $1.57 billion in capital funding for the CRC First Phase Project, using current market interest rate assumptions and assuming the expenditure of pre-completion tolls on a pay-as-you-go basis as discussed above. As the interest rate sensitivity analysis described above demonstrates, however, an increase in interest rates over those assumed for the current market would reduce funding capacity to the project for every scenario analyzed, with the degree of impact dependent on the increase in rates and the bonding structure analyzed.

PRAG has not been involved in the development or review of the CDM Smith investment grade traffic and revenue study or the PB Analysis, and has not been engaged to review the reasonableness of the assumptions and inputs into traffic and revenue projections, nor has it been involved in or engaged to review the reasonableness of the assumptions or inputs into the net toll revenue analysis contained in the PB Analysis. The scope of PRAG's engagement has been limited to calculating the net project funding capacity of the given net toll revenue stream based on a number of structuring assumptions as discussed in this memorandum, as well as project funding needs (both timing and amounts), all of which impact net project funding capacity. Further, these preliminary projections are based on a number of assumptions related to toll policy (toll rates and surcharge rates) that will be subject to future decisions of Oregon policy makers.

Exhibit A – Summary of Results

Amounts in $ Millions	Principal						NonProject Uses of Proceeds	PAYGO from Pre-Completion Tolling	Net Proceeds	Change from Base	
	Standalone Senior		State-Backed		TIFIA	TOTAL					
	CIBs	CABs	CIBs	CABs						($ Millions)	(%)
State-Backed Bonds (40-Year)											
Current Rates	-	-	1,319.4	13.1	-	1,332.5	249.3	267.4	1,350.6	n/a	n/a
+50bps	-	-	1,193.7	29.6	-	1,223.3	230.9	267.4	1,259.8	(90.83)	-6.725%
+100bps	-	-	1,089.9	40.4	-	1,130.3	214.0	267.4	1,183.7	(166.90)	-12.358%
+150bps	-	-	1,002.7	46.8	-	1,049.5	200.9	267.4	1,116.0	(234.60)	-17.370%
State-Backed Bonds (40-Year) + TIFIA											
Current Rates (1)	-	-	432.0	11.8	900.0	1,343.8	39.2	267.4	1,572.0	n/a	n/a
+50bps	-	-	324.4	15.3	900.0	1,239.7	24.7	267.4	1,482.4	(89.66)	-5.703%
+100bps	-	-	225.7	23.3	900.0	1,149.0	16.5	267.4	1,399.9	(172.17)	-10.952%
+150bps	-	-	131.0	38.8	900.0	1,069.8	10.6	267.4	1,326.6	(245.41)	-15.611%
Toll Revenue Bonds + TIFIA											
Current Rates (2)	361.0	6.7	-	-	900.0	1,267.7	74.0	267.4	1,461.1	n/a	n/a
+50bps	280.2	7.3	-	-	900.0	1,187.5	56.9	267.4	1,398.0	(63.19)	-4.325%
+100bps	196.9	13.6	-	-	900.0	1,110.5	42.1	267.4	1,335.8	(125.30)	-8.575%

+150bps	117.2	26.1	-	-	900.0	1,043.3	27.9	267.4	1,282.8	(178.32)	-12.204%

(1) Rates for state-backed toll revenue bonds, expected to be issued in 2021, are 50 basis points (0.50%) higher than estimated current market rates. At current market rates, net funding capacity would be $24.8 million higher for the Current Rates scenario, and $19.0 million, $16.0 million, and $12.0 million higher for the +50 bps, +100 bps, and +150 bps sensitivity scenarios, respectively.

(2) Rates for stand-alone toll revenue bonds, expected to be issued in 2021, are 125 basis points (1.25%) higher than estimated current market rates. At current market rates, net funding capacity would be $36.7 million higher for the Current Rates scenario, and $32.7 million, $28.9 million, and $19.5 million higher for the +50 bps, +100 bps, and +150 bps sensitivity scenarios, respectively.

Exhibit B — Overview of Major Structuring Assumptions

Debt Vehicle	State-Backed Toll Revenue Bonds	TIFIA Loan	Standalone Toll Revenue Bonds (TRBs)
Credit Structure	Secured by Net Toll Revenues, plus State backstop of revenues and/or GO pledge	Secured by Net Toll Revenues	Secured by Net Toll Revenues (net of O&M)
Amortization	40 years	35 years from project completion	Max 40 years
Minimum Debt Service Coverage	1.30x (*note: FEIS assumed 1.25x*)	1.15x (*FEIS assumed 1.10x*)	2.00x Senior; 1.50x Junior
Current Market Rates (as of 12/11/13) – 30 Yr Yield to Nearest 0.25%	Current Interest Bonds: 4.75% / 5.50% for TIFIA scenarios Capital Appreciation Bonds: 6.00% / 6.75% for TIFIA scenarios	4.00% (30 YR UST plus 1 bp)	Current Interest Bonds: 7.00% for TIFIA scenarios (Senior, low "A" issued in 2021) Capital Appreciation Bonds: 8.50% for TIFIA scenarios (Senior)
Debt Service Structure	Proportional to Net Toll Revenues	Proportional to Net Toll Revenues	Proportional to Net Toll Revenues

Use of Pre-Completion Tolls	Fund O&M Reserve, R&R Reserve, and Revenue Stabilization Fund first; use excess to pay Project Costs.	Fund O&M Reserve, R&R Reserve, and Revenue Stabilization Fund first; use excess to pay Project Costs.	Fund O&M Reserve, R&R Reserve, and Revenue Stabilization Fund first; use excess to pay Project Costs.
Debt Service Reserve Fund	n/a	n/a	Funded at lesser of Maximum Annual Debt Service, 10% of par, and 125% average annual debt service
Bond-Related Expenses (COI)	Current Interest Bonds: 0.7% Capital Appreciation Bonds: 1.2%	n/a (paid from revenue, not included in loan sizing)	2.5%

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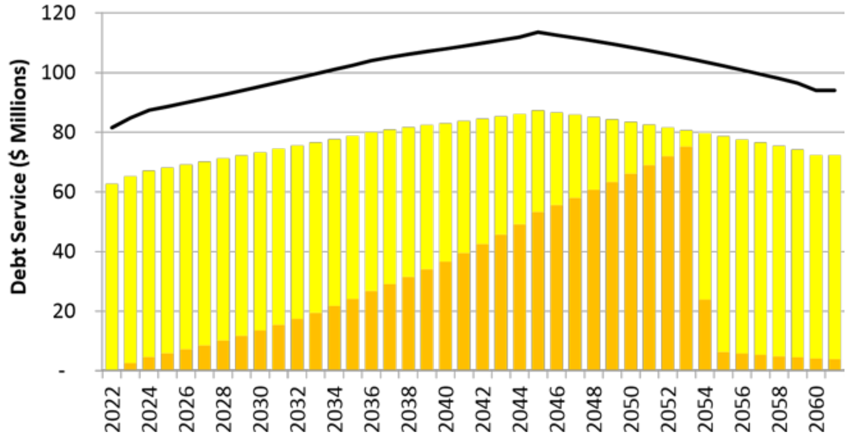
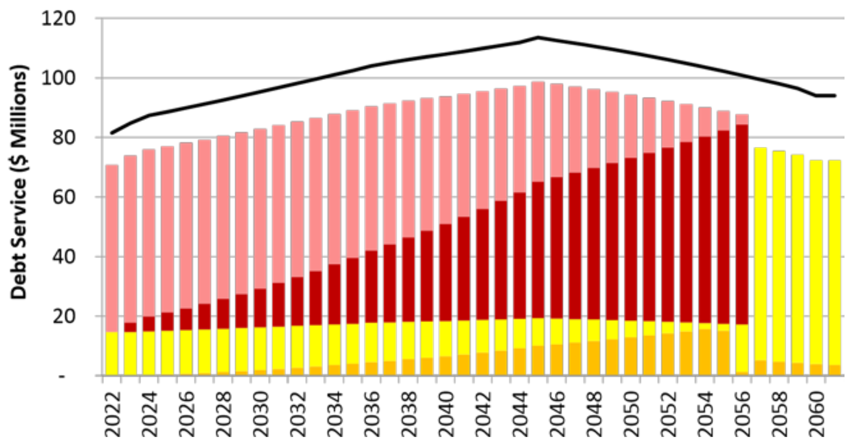
Exhibit C – Debt Service Structures at Current Market Rates plus 100 basis points

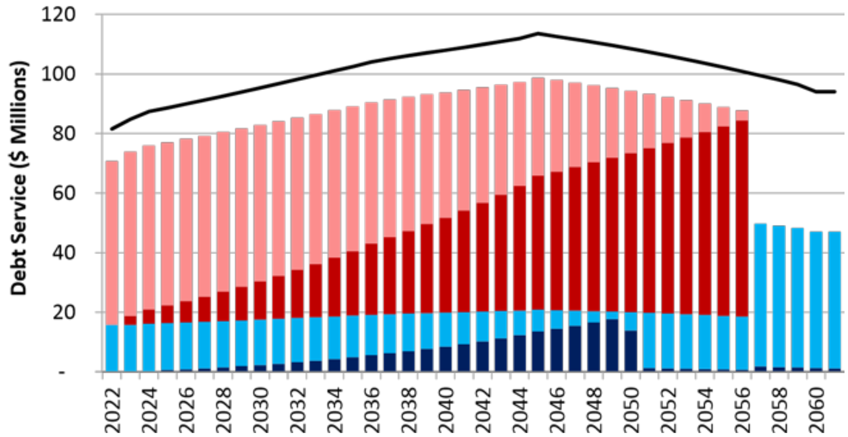
Scenario 1: State-Backed – No TIFIA



Scenario 2: State-Backed & TIFIA



Scenario 3: TRBs & TIFIA



GO Principal GO Interest Net Revenue

Sr. Prn. Sr. Int. TIFIA Prn. TIFIA Int