



A Cost Estimate of Federal Infrastructure

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Key Points of this Note:

- The mandate of the Parliamentary Budget Officer (PBO) is to provide independent analysis to Parliament on the state of the nation's finances, the government's estimates and trends in the Canadian economy and, upon request from a committee or parliamentarian, to estimate the financial expenditure of any proposal for matters over which Parliament has jurisdiction.
- In April 2013, the PBO received a request from the Member for Parkdale-High Park regarding a cost estimate to maintain the real purchasing power of federal infrastructure spending through 2023-24. This note estimates the cost of maintaining infrastructure spending in real terms through 2023-24. It identifies the sources of funding for proposed infrastructure spending in Economic Action Plan (EAP) 2013 and examines the associated fiscal impacts.
- In *2013 constant dollar* terms, it is estimated that approximately \$45 billion is required to fund infrastructure at existing levels for ten years, from 2014-15 through 2023-24. Funding proposed in EAP 2013 (\$48 billion) would cumulatively exceed the baseline by \$3 billion.
 - New and renewed funding would provide \$42 billion.
 - Unspent program funding from previous fiscal years would provide \$6 billion.

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1. Context

The Parliamentary Budget Officer's (PBO) legislative mandate is to "provide independent analysis to the Senate and to the House of Commons about the state of the nation's finances, the estimates of the government and trends in the national economy". When requested to do so by a member or committee of the Senate or the House of Commons, the PBO is to estimate the financial cost of any proposal that relates to a matter over which Parliament has jurisdiction.¹

In April 2013, the PBO received a request from the Member for Parkdale-High Park regarding a cost estimate to maintain the real purchasing power of federal infrastructure spending through 2023-24, including relative commitments made in Budget 2007.

2. Analysis

This analysis examines the infrastructure funding commitments of Budget 2007, the prospective sources of funding in Economic Action Plan (EAP) 2013, and an estimated cost to the treasury to maintain the real purchasing power of infrastructure spending through 2023-24.

Pursuant to the Member's request, this analysis considers the five primary components of the Government's original infrastructure funding commitment in Budget 2007:

- (i) the Gas Tax Fund
- (ii) the GST Rebate for Municipalities (GST Rebate)
- (iii) the Public-Private Partnerships Fund (P3 Fund)
- (iv) the Building Canada Fund
- (v) Provincial/Territorial Base Funding (P/T Funding)

These initiatives were allocated funding over a seven-year period, from 2007-08 to 2013-14. Fully implemented, federal infrastructure expenditure was planned to peak at \$5.2 billion in 2013-14, at a cumulative cost of \$30 billion.²

Actual Expenditures

The budgeted allotments for infrastructure presented in Appendix A (Table 1), can be compared to the actual spending patterns in 2007-08 through 2011-12 (Table 2). Actual spending data is not yet available beyond 2011-12, but the Main Estimates and Reports on Plans and Priorities provide spending forecasts for 2012-13 and 2013-14.³

¹ <http://laws.justice.gc.ca/eng/PDF/P-1.PDF>. Accessed April 2013.

² Budget 2007 included funding for two initiatives – Gateways and Border Crossing (\$2 billion) and the Asia-Pacific Gateway and Corridor (\$1 billion) – that are not being renewed in EAP 2013. Total infrastructure commitments in Budget 2007, including these two initiatives, totaled \$33 billion over seven years.

³ PPP Canada's Corporate Plan and Finance Canada's Tax Expenditures and Evaluations 2012 were also used to develop spending forecasts.

Budget 2007 planned for infrastructure expenditures to begin in 2007-08. However, only the Gas Tax Fund and GST Rebate transfers initiated cash outflows in the first budgeted year. The Building Canada Fund and Provincial/Territorial Base Funding did not begin expending cash flows until 2008-09, and expenditures for the P3 Fund did not commence until 2009-10.

Tables 1 and 2 illustrate the divergence between actual (\$25 billion) and planned expenditures (\$30 billion) – expected to accrue to \$4.5 billion, or 15 per cent of planned expenditures by the end of 2013-14. This primarily results from expenditure delays in the Building Canada Fund, which is estimated to spend \$4.4 billion of a planned \$8.8 billion envelope by 2013-14.^{4,5}

Economic Action Plan 2013

Economic Action Plan 2013 provides \$47 billion in new and renewed funding for infrastructure from 2014-15 through 2023-24 (Table 3). The EAP proposes to incrementally increase the Gas Tax Fund by \$100 million on a bi-annual basis and to renew a five-year \$1.25 billion funding commitment to the P3 Fund. EAP 2013 also proposes the New Building Canada Fund to replace the Building Canada Fund and Provincial/Territorial Base Funding.

In addition to \$47 billion in new and renewed funding, an additional \$6 billion is to be provided through existing program funding in 2014-15 through 2018-19, bringing the aggregate funding commitment to \$54 billion through 2023-24. The Government announced in the Update of Economic and Fiscal Projections 2012 that a portion of previous planned infrastructure spending was deferred to future years in light of project delays.⁶ As noted above, actual infrastructure spending through 2013-14 is anticipated to be approximately \$4.5 billion lower than initially planned in Budget 2007.

Figure 2-1 illustrates actual, forecast and planned infrastructure expenditures in *nominal dollar* terms, provided for under Budget 2007 and EAP 2013. EAP 2013 proposes to provide infrastructure funding at levels in excess of \$5 billion per annum, through \$47 billion in new and renewed funding, and \$6 billion sourced from within existing programs (or 11 per cent of total funding committed).

The allocation of existing program funding is primarily concentrated to the initial two years of the ten-year EAP 2013 planning horizon. As a result, an average of 35 per cent of planned infrastructure spending in 2014-15 and 2015-16 will be sourced within existing program funds. Infrastructure spending planned beyond 2018-19 would be provided solely through new or renewed funding.

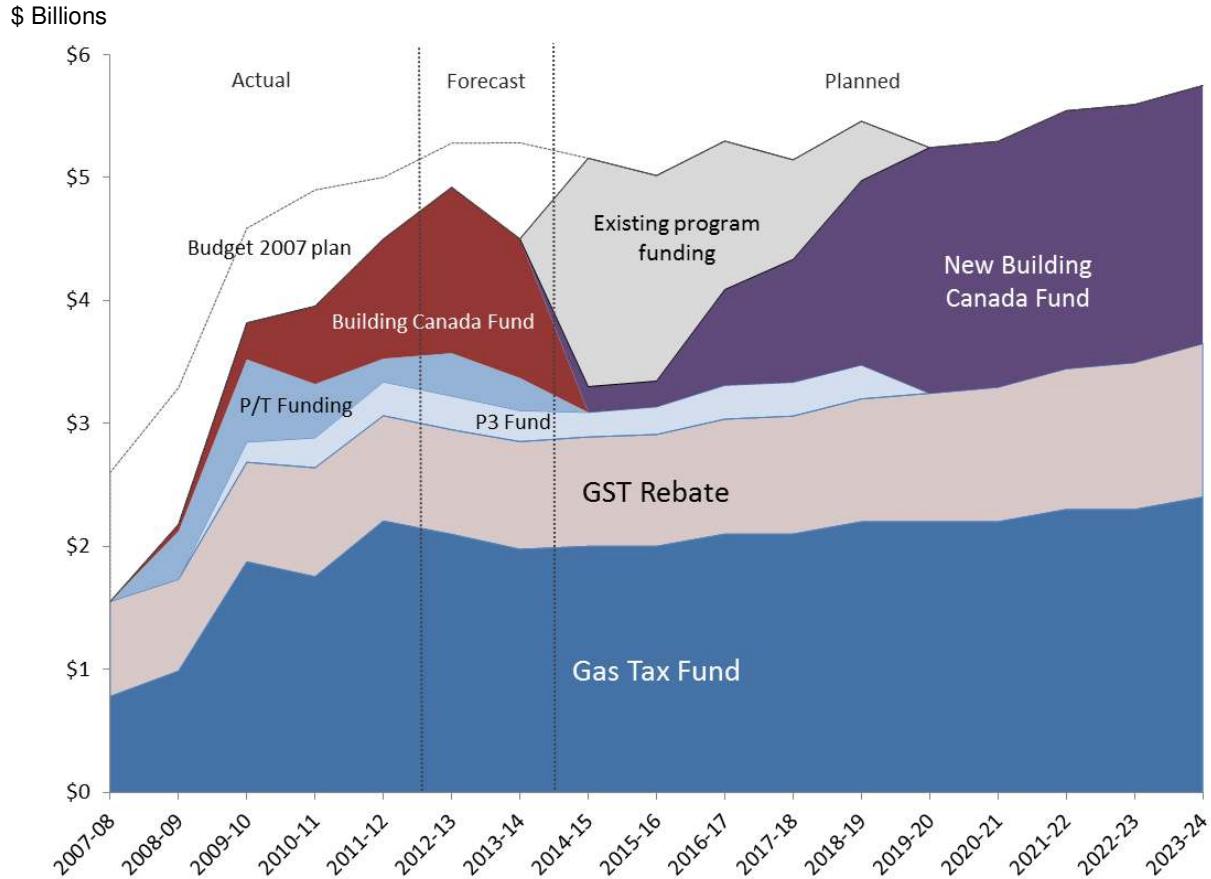
⁴ Infrastructure Canada Departmental Performance Reports and PBO calculations.

⁵ In developing this analysis, Infrastructure Canada was contacted, but did not provide detail regarding funding deferral for infrastructure initiatives and the corresponding fiscal profile.

⁶ Sources: Update of Economic and Fiscal Projections 2012 and a Finance Canada [response](#) regarding a January 2013 PBO information [request](#).

Figure 2-1

Infrastructure Expenditure: Nominal Dollars



Sources: Infrastructure Canada Departmental Performance Reports, Reports on Plans and Priorities and Annual Financial Statements; PPP Canada Annual Reports and Corporate Plans; Finance Canada Tax Expenditures and Evaluations; Main Estimates 2013-14; Budget 2007 and EAP 2013.

Fiscal cost to maintain the real purchasing power for infrastructure

To determine the cost to the treasury to maintain the real purchasing power for infrastructure initiatives through 2023-24, the respective seven- and ten-year expenditure and budgeting horizons require an inflation adjustment.

Figure 2-2 and Appendix B (Table 4) detail in *2013 constant dollars*, the actual, forecast and planned spending profiles from Budget 2007 and EAP 2013. The Statistics Canada non-residential construction price index is used to index infrastructure construction funding prior to 2013-14 and the PBO's inflation outlook is used to index future years.⁷

⁷ A non-residential construction price forecast for 2013-14 to 2023-24 was unavailable.

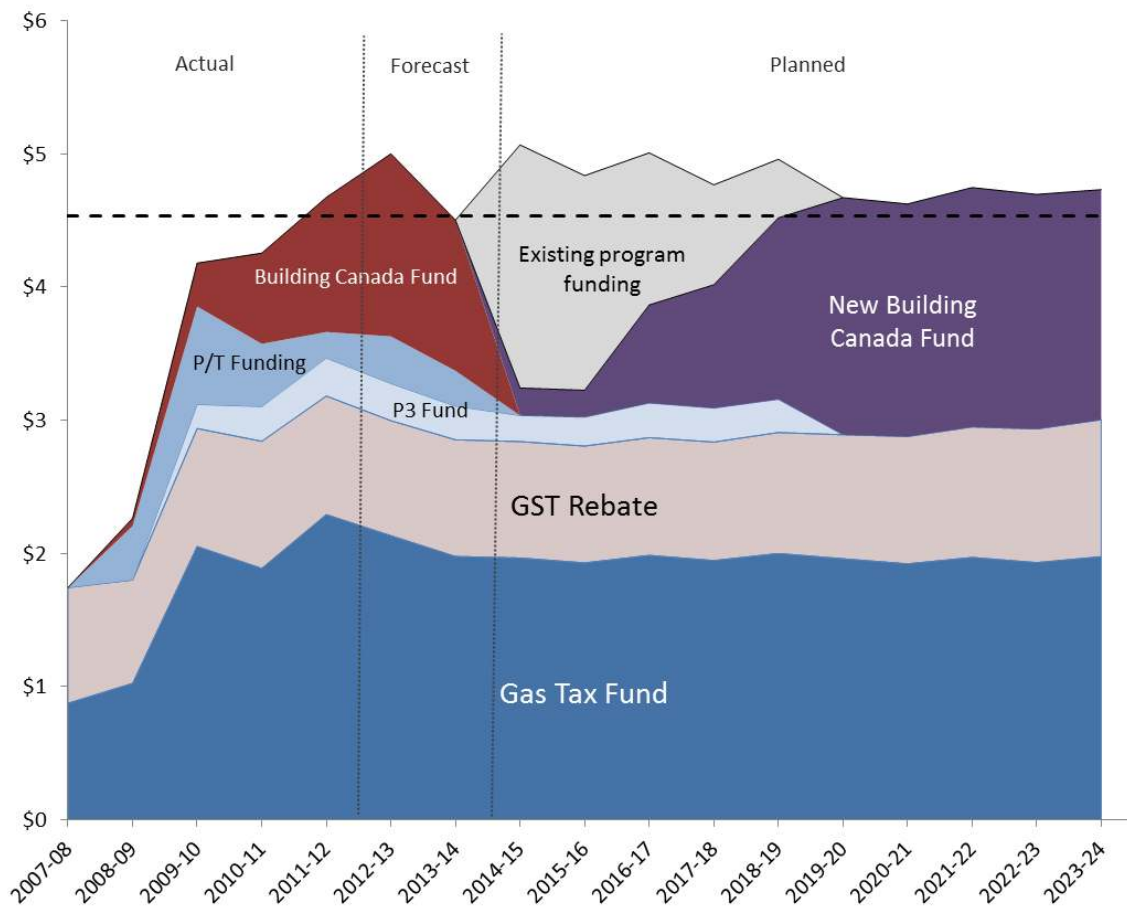
The cost to maintain the real purchasing power of infrastructure spending is estimated at \$4.5 billion per year, indicated by a dotted line in Figure 2-2. This measure is derived by averaging the actual annual expenditures, in 2013 constant dollar terms, in 2009-10 through 2013-14. This approach excludes the two-year 'ramp-up' period before 2009-10, when all infrastructure programs had yet to incur costs.

The new, renewed and existing funding for infrastructure proposed in EAP 2013 would have a net fiscal impact of \$48 billion over ten years (\$4.8 billion per year). This funding is approximately \$290 million per year higher than the 2009-10 to 2013-14 baseline infrastructure expenditure levels.

Figure 2-2

Infrastructure Expenditure: 2013 Constant Dollars

\$ Billions



Dotted line (---) indicates 2009-10 to 2013-14 baseline infrastructure funding in 2013 constant dollars.

Sources: Statistics Canada, Infrastructure Canada Departmental Performance Reports, Reports on Plans and Priorities and Annual Financial Statements; PPP Canada Annual Reports and Corporate Plans; Finance Canada Tax Expenditures and Evaluations; Main Estimates 2013-14; EAP 2013; and PBO calculations.

3. Conclusion

In 2013 constant dollar terms, it is estimated that approximately \$45 billion is required to fund infrastructure at existing levels for an additional ten years, from 2014-15 through 2023-24. Funding proposed in EAP 2013 (\$48 billion) would cumulatively exceed the baseline amount by \$3 billion.

EAP 2013 funding is provided through a combination of new, renewed and existing program funding unspent from previous fiscal years. New and renewed funding would provide \$42 billion, while existing unspent funding would provide \$6 billion.

Appendix A: Infrastructure Expenditure – Nominal Dollars

Table 1

Budget 2007: Planned Infrastructure Expenditures

(\$ millions)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Gas Tax Fund	800	1,000	2,000	2,000	2,000	2,000	2,000	11,800
GST Rebate	715	750	790	830	875	915	960	5,835
P3 Fund	82	132	169	200	204	234	236	1,257
Building Canada Fund	572	926	1,186	1,401	1,427	1,636	1,655	8,803
Provincial/Territorial Base Funding	325	325	325	325	325	325	325	2,275
Total	2,494	3,133	4,470	4,756	4,831	5,110	5,176	29,970

Totals may not sum due to rounding.

Source: Budget 2007

Table 2

Actual and Forecast Expenditure: Infrastructure (2007-08 to 2013-14)

(\$ millions)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 ^f	2013-14 ^f	Total
Gas Tax Fund	778	985	1,874	1,753	2,206	2,098	1,976	11,670
GST Rebate	774	748	810	887	857	851	876	5,803
P3 Fund	-	-	165	243	275	275	253	1,211
Building Canada Fund	-	56	298	633	974	1,350	1,132	4,443
Provincial/Territorial Base Funding	-	391	672	438	189	348	265	2,302
Total	1,552	2,180	3,819	3,954	4,501	4,922	4,502	25,429
% of Planned	62%	70%	85%	83%	93%	96%	87%	85%

^f indicates forecasted amounts.

Totals may not sum due to rounding.

Sources: Infrastructure Canada Departmental Performance Reports, Reports on Plans and Priorities and Annual Financial Statements; PPP Canada Annual Reports and Corporate Plans; Finance Canada Tax Expenditures and Evaluations; Main Estimates 2013-14; Budget 2007; EAP 2013 and PBO calculations.

Table 3

EAP 2013: Planned Infrastructure Expenditures

(\$ millions)	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Gas Tax Fund	2,000	2,000	2,100	2,100	2,200	2,200	2,200	2,300	2,300	2,400	21,800
GST Rebate	890	910	935	960	1,000	1,045	1,095	1,145	1,195	1,250	10,425
New Building Canada Fund	210	210	780	1,000	1,500	2,000	2,000	2,100	2,100	2,100	14,000
P3 Fund	200	225	275	275	275	-	-	-	-	-	1,250
Sub-total	3,300	3,345	4,090	4,335	4,975	5,245	5,295	5,545	5,595	5,750	47,475
Existing program funding	1,858	1,672	1,208	810	484	-	-	-	-	-	6,032
Total	5,158	5,017	5,298	5,145	5,459	5,245	5,295	5,545	5,595	5,750	53,507

Shaded cells indicate PBO estimates based on figures and descriptions provided in EAP 2013.

Totals may not sum due to rounding.

Sources: EAP 2013 and PBO calculations.

Appendix B: Infrastructure Expenditure – 2013 Constant Dollars

Table 4

Actual, Forecast and Planned Infrastructure Expenditure: 2013 constant dollars

	Actual					Forecast					
(\$ millions)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total			
Gas Tax Fund	874	1,023	2,051	1,886	2,291	2,132	1,976	12,232			
GST Rebate	869	777	887	955	890	864	876	6,117			
P3 Fund	-	-	181	261	286	279	253	1,260			
Provincial/Territorial Base Funding	-	406	735	471	196	354	265	2,426			
Building Canada Fund	-	58	326	682	1,011	1,372	1,132	4,581			
Total	1,743	2,263	4,179	4,255	4,673	5,001	4,502	26,616			
Planned											
(\$ millions)	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Gas Tax Fund	1,965	1,928	1,985	1,946	1,998	1,959	1,921	1,969	1,930	1,975	19,575
GST Rebate	874	877	884	890	908	931	956	980	1,003	1,028	9,331
P3 Fund	196	217	260	255	250	-	-	-	-	-	1,178
New Building Canada Fund	206	202	737	927	1,363	1,781	1,746	1,798	1,762	1,728	12,250
Sub-total	3,242	3,225	3,865	4,017	4,519	4,671	4,623	4,747	4,695	4,731	42,335
Existing program funding	1,825	1,612	1,142	751	440	-	-	-	-	-	5,769
Total	5,067	4,836	5,007	4,767	4,959	4,671	4,623	4,747	4,695	4,731	48,104

Shaded cells indicate PBO estimates based on figures and descriptions provided in EAP 2013.

Totals may not sum due to rounding.

Sources: Statistics Canada, Infrastructure Canada Departmental Performance Reports, Reports on Plans and Priorities and Annual Financial Statements; PPP Canada Annual Reports and Corporate Plans; Finance Canada Tax Expenditures and Evaluations; Main Estimates 2013-14; EAP 2013; and PBO calculations.