

Deep Well Royalty Program

2016/17 Key Numbers

\$2.148 billion
Outstanding Deep Well Credits

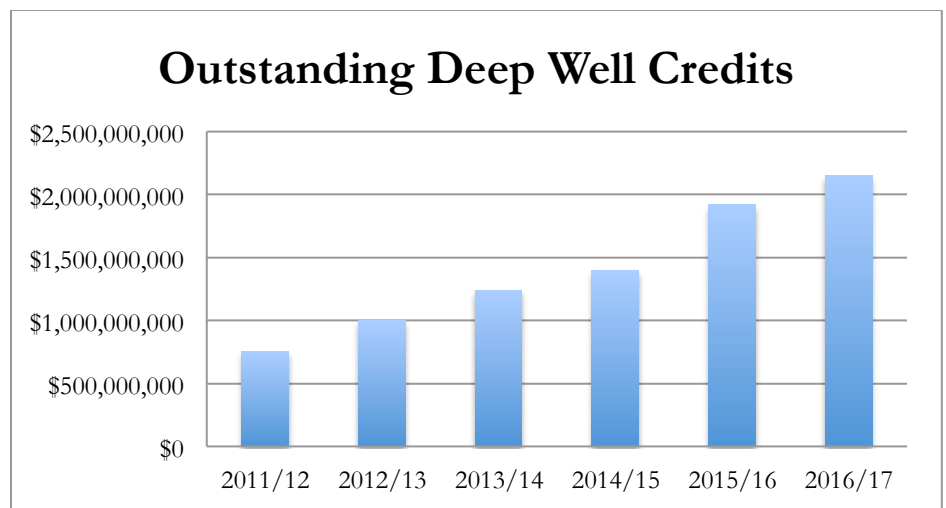
\$210 million
Deep Well Credits Redeemed

\$152 million
Natural Gas Royalties
Collected

3,900
Jobs in Oil-and-Gas Extraction

The Deep Well Royalty Program was designed to enable the provincial government to share the cost of drilling in BC's deep gas basins. It has since been transformed into a massive and obscure subsidy for horizontal drilling and hydraulic fracturing.

Natural gas companies now receive hundreds of millions of dollars in "deep well" credits each year, even for shallow wells provided their horizontal sections are long enough. Companies "earn" these credits by drilling qualifying wells. When the wells start to produce gas, the companies redeem the credits to reduce or even eliminate provincial royalties on this public resource.



In recent years, the participating companies have amassed these credits faster than they can spend them. The balance in their "deep drilling" account has increased from \$752 million in 2012 to more than \$2.14 billion today.

In 2009 and 2014, the BC Liberal government relaxed the requirements for the Deep Well Royalty Program by reducing the minimum depth and increasing the credit for horizontal sections. These changes turned the program into a bonanza for horizontal drilling and fracking. In the eight years prior to the 2009 changes, BC collected an average of \$1.3 billion per year in natural gas royalties. In the eight years since, it has collected an average of only \$307 million per year. Measured as a share of the value of oil-and-gas production in BC, royalties have fallen from 44% in 2008 to just 4% in 2016. We are giving our natural gas away to promote fracking in northeast BC.

This program has never been properly explained or publicly justified. For example, the province said the 2014 changes would generate \$2.9 million in additional royalties over three years. Instead, annual natural gas royalties collected have decreased by \$293 million, while the balance of "deep well" credits available to reduce future royalties has increased by \$907 million. The number of jobs in oil-and-gas extraction has also fallen by 2,300 (-37%) over that period.

The new NDP government plans to maintain this outrageous subsidy, even as companies report record low drilling costs. It anticipates the "deep well" credits redeemed by companies to reach \$500 million in 2019/2020, up from \$210 million in 2016/17.

Notes to Consolidated Summary Financial Statements for the Fiscal Year Ended March 31, 2017—Continued

28. Taxation Revenue

	In Millions	
	2017	2016
	\$	\$
Personal income.....	9,704	8,380
Provincial sales.....	6,601	6,045
Corporate income.....	3,003	2,787
Property.....	2,279	2,219
Property transfer.....	2,026	1,533
Carbon.....	1,220	1,190
Fuel.....	970	973
Tobacco.....	737	734
Harmonized sales.....	5	(55)
Other.....	548	520
	<u>27,093</u>	<u>24,326</u>

Personal income tax and corporate income tax revenues are recorded after deductions for non-refundable tax credits. Deductions allowable in the calculation of personal income tax revenue were \$96 million (2016: \$89 million) and corporate income tax were \$100 million (2016: \$89 million). The types of tax credits adjusting personal income tax and corporation income tax revenues are for foreign taxes, logging taxes, venture capital, scientific and experimental development tax, and mining flow-through share.

Personal income tax revenue was also reduced by \$157 million (2016: \$147 million) for the BC Tax Reduction.

Personal and corporate income tax refunds may be issued under the *International Business Activity Act*. Corporate income tax refunds were \$19 million (2016: \$21 million).

Property tax revenue was recorded net of home owner grants of \$797 million (2016: \$789 million).

29. Natural Resource Revenue

	In Millions	
	2017	2016
	\$	\$
Petroleum, natural gas and minerals.....	1,187	1,130
Forests.....	913	865
Water and other.....	611	576
	<u>2,711</u>	<u>2,571</u>

Oil and gas royalty revenues are reported after adjustments for various royalty deduction programs such as producer cost of service allowances, deep well, marginal, ultra marginal, low production, net profit, new pool discovery and road construction. Deductions allowable in the calculation of royalty revenue were \$363 million (2016: \$348 million). Natural resource revenue includes mining taxes of \$258 million (2016: \$103 million) and logging taxes of \$30 million (2016: \$38 million).

The province offers credits for certain costs incurred by producers including the deep well, road and summer drilling programs. Deep well credits of \$2,148 million (2016: \$1,918 million), road credits of \$9 million (2016: \$29 million) and summer drilling credits of \$3 million (2016: \$3 million) have been incurred by producers and will reduce future natural gas royalties payable when wells go into production.

Table A5 Material Assumptions – Revenue (continued)

Revenue Source and Assumptions (\$ millions unless otherwise specified)	Budget Estimate 2017/18	Plan 2018/19	Plan 2019/20	2017/18 Sensitivities
Energy, sales of Crown land tenures, metals, minerals and other *	\$1,056	\$926	\$885	
Natural gas price				+/- \$0.25 change in the natural gas price equals +/- \$60 to \$70 million, including impacts on production volumes and royalty program credits, but excluding any changes from natural gas liquids revenue (e.g. butane, pentanes) Sensitivities can also vary significantly at different price levels +/- 1% change in natural gas volumes equals +/- \$2 million on natural gas royalties +/- 1 cent change in the exchange rate equals +/- \$1 million on natural gas royalties +/- US\$20 change in the average metallurgical coal price equals +/- \$40 to \$50 million +/- 10% change in the average Mid-Columbia electricity price equals +/- \$13 million
Plant inlet, \$C/gigajoule	\$1.60	\$1.68	\$1.78	
Sumas, \$US/MMBtu	\$2.38	\$2.48	\$2.60	
Natural gas production volumes				
Billions of cubic metres	51.1	58.8	64.9	
Petajoules	2,102	2,419	2,671	
Annual per cent change	11.3%	15.1%	10.4%	
Oil price (\$US/bbl at Cushing, OK)	\$51.04	\$55.43	\$61.04	
Auctioned land base (000 hectares)	63	40	40	
Average bid price/hectare (\$)	\$1,956	\$160	\$200	
Cash sales of Crown land tenures	\$122	\$6	\$8	
Metallurgical coal price (\$US/tonne, fob West Coast)	\$145	\$120	\$116	
Copper price (\$US/lb)	\$2.56	\$2.60	\$2.72	
Annual electricity volumes set by treaty (million mega-watt hours)	4.0	4.0	4.0	
Mid-Columbia electricity price	\$24	\$24	\$25	
(\$US/mega-watt hour)				
Exchange rate (US\$/C\$, calendar year)	76.3	77.3	78.8	
<u>Components of revenue</u>				Based on a recommendation from the Auditor General to be consistent with generally accepted accounting principles, bonus bid revenue recognition reflects nine-year deferral of cash receipts from the sale of Crown land tenures
Bonus bid auctions:				
Deferred revenue.....	\$305	\$219	\$129	
Current-year cash (one-ninth).....	\$14	\$1	\$1	
Fees and rentals.....	\$52	\$52	\$52	
Total bonus bids, fees and rentals	\$371	\$272	\$182	
Natural gas royalties.....	\$237	\$307	\$357	
Petroleum royalties	\$62	\$68	\$72	
Columbia River Treaty electricity sales	\$107	\$106	\$107	
Oil and Gas Commission fees and levies	\$50	\$49	\$50	
Coal, metals and other minerals revenue:				
Coal mineral tax.....	\$183	\$63	\$52	
Net metals and other minerals tax.....	\$13	\$26	\$22	
Recoveries related to metal mines	\$11	\$12	\$20	
Coal tenures	\$8	\$8	\$8	
Miscellaneous mining revenue	\$14	\$15	\$15	
Total coal, metals and other minerals revenue	\$229	\$124	\$117	
<u>Royalty programs and infrastructure credits</u>				
Deep drilling	-\$341	-\$399	-\$500	
Road and pipeline infrastructure	-\$43	-\$52	-\$69	
Total	-\$384	-\$451	-\$569	
Implicit average natural gas royalty rate	7.0%	7.6%	7.5%	
Royalty program (marginal, low productivity and ultra marginal drilling) adjustments reflect reduced royalty rates.				
Natural gas royalties incorporate royalty programs and Treasury Board approved infrastructure credits.				
* Reflects information as at August 3, 2017.				



Table A2.5 Revenue by Source – 2005/06 to 2016/17 ¹

(\$ millions)	Actual 2005/06	Actual 2006/07	Actual 2007/08	Actual 2008/09	Actual 2009/10	Actual 2010/11	Actual 2011/12	Actual 2012/13	Actual 2013/14	Actual 2014/15	Actual 2015/16	Actual 2016/17	Average annual change (per cent)
Taxation revenue:													
Personal income	5,960	7,020	7,074	6,309	5,769	5,805	6,427	6,977	6,862	8,076	8,380	9,704	4.5
Corporate income	1,587	1,732	2,477	2,294	1,625	2,026	2,002	2,204	2,427	2,635	2,787	3,003	6.0
Harmonized sales	-	-	-	-	-	4,176	5,779	5,950	(226)	(91)	(55)	6	n/a
Other sales ²	4,507	4,886	5,248	5,137	4,945	1,438	151	118	5,529	5,853	6,045	6,600	n/a
Fuel	911	901	935	891	884	940	928	890	917	932	973	969	0.6
Carbon	-	-	-	306	541	741	959	1,120	1,222	1,198	1,190	1,220	n/a
Tobacco	702	727	693	709	683	735	636	614	724	752	734	737	0.4
Property	1,719	1,734	1,797	1,850	1,887	1,920	1,913	1,985	2,080	2,154	2,219	2,279	2.6
Property transfer	843	914	1,068	715	887	855	944	758	937	1,065	1,533	2,026	8.3
Corporation capital	162	91	117	108	95	(3)	(5)	1	-	(1)	-	-	n/a
Insurance premium	330	353	373	389	389	399	411	433	458	483	520	549	4.7
	16,721	18,358	19,782	18,708	17,705	19,032	20,145	21,050	20,930	23,056	24,326	27,093	4.5
Natural resource revenue:													
Natural gas royalties	1,921	1,207	1,132	1,314	406	313	339	169	445	493	139	152	-20.6
Crown land tenures	386	441	569	814	867	923	928	868	859	834	765	633	4.6
Columbia River Treaty	319	223	246	231	168	136	110	89	170	130	116	111	-9.2
Other energy and minerals	392	456	367	479	421	514	529	306	269	267	226	403	0.3
Forests	1,214	1,276	1,087	557	387	436	482	562	719	754	865	913	-2.6
Other resources	317	342	341	413	398	406	424	479	493	459	460	499	4.2
	4,549	3,945	3,742	3,808	2,647	2,728	2,812	2,473	2,955	2,937	2,571	2,711	-4.6
Other revenue:													
Medical Services Plan premiums	1,482	1,524	1,557	1,595	1,666	1,787	1,919	2,047	2,158	2,254	2,434	2,558	5.1
Post-secondary education fees	892	928	979	1,036	1,123	1,235	1,291	1,345	1,445	1,544	1,666	1,828	6.7
Other healthcare related fees	225	237	248	257	267	308	324	327	333	358	374	404	5.5
Motor vehicle licences and permits	405	427	445	450	449	467	479	489	504	499	521	529	2.5
Other fees and licences	682	692	750	670	616	643	722	699	770	770	841	894	2.5
Investment earnings	951	1,023	1,133	818	930	843	1,022	1,189	1,205	1,175	1,214	1,242	2.5
Sales of goods and services	719	678	637	694	728	759	930	942	946	967	1,011	1,131	4.2
Miscellaneous	1,452	1,774	1,813	1,809	1,887	1,929	1,746	1,673	2,256	1,893	2,287	2,377	4.6
	6,808	7,283	7,562	7,329	7,666	7,971	8,433	8,711	9,617	9,460	10,348	10,963	4.4
Contributions from the federal government:													
Canada Health Transfer	3,020	3,096	3,294	3,343	3,450	3,689	3,858	3,887	4,280	4,186	4,454	4,744	4.2
Canada Social Transfer	1,200	1,377	1,320	1,400	1,433	1,487	1,526	1,555	1,589	1,641	1,695	1,751	3.5
Harmonized sales tax transition payments	-	-	-	-	250	769	580	-	-	-	-	-	n/a
Equalization	590	459	-	-	-	-	-	-	-	-	-	-	n/a
Other cost shared agreements	1,025	1,465	1,328	1,252	1,794	2,064	1,760	1,605	1,645	1,452	1,498	1,672	4.5
	5,835	6,397	5,942	5,995	6,927	8,009	7,724	7,047	7,514	7,279	7,647	8,167	3.1
Commercial Crown corporation net income:													
BC Hydro	266	407	369	365	447	591	558	509	549	581	655	684	9.0
Liquor Distribution Branch	800	840	858	891	877	891	909	930	877	935	1,031	1,083	2.8
BC Lotteries (net of payments to federal gov't)	914	1,011	1,080	1,082	1,070	1,097	1,102	1,116	1,165	1,245	1,304	1,329	3.5
BC Railway Company	33	30	13	36	2	15	14	6	13	5	6	7	n/a
ICBC	191	381	633	512	601	315	84	231	136	657	(293)	(612)	n/a
Transportation Investment Corp.	-	-	-	(47)	(4)	(7)	(17)	(60)	(88)	(89)	(80)	(81)	n/a
Other	21	33	42	41	40	38	41	44	49	37	87	115	16.7
	2,225	2,702	2,995	2,880	3,033	2,940	2,691	2,776	2,701	3,371	2,710	2,525	1.2
Total revenue	36,138	38,685	40,023	38,720	37,978	40,680	41,805	42,057	43,717	46,103	47,602	51,459	3.3

¹ Figures have been restated to reflect government accounting policies in effect at March 31, 2017.

² Includes social service tax, hotel room tax, provincial sales tax, tax on designated properties and housing transition tax.