



Spring 2018 Revenue Forecast

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Errata - March 16, 2018
Table F-1 was revised



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Revenue

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March 16, 2018

The Honorable Bill Walker, Governor of Alaska
P.O. Box 110001
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Dear Governor Walker:

I am pleased to present to you the Department of Revenue's Spring 2018 revenue forecast. The 2018 spring forecast is based on additional information and data received since publishing last fall's forecast of state revenues. This update is a collaborative effort among the Department of Revenue, the Department of Natural Resources, the Alaska Permanent Fund Corporation, and the Office of Management and Budget.

Unrestricted General Fund (UGF) revenue is now forecast to be \$2.3 billion in fiscal year FY 2018 and \$2.3 billion in FY 2019. The forecast represents an increase in expected UGF revenue of \$256 million for FY 2018 and \$212 million for FY 2019, compared to the projection in the fall 2017 forecast. Beyond FY 2019, the unrestricted revenue forecast has been increased by between \$124 million and \$213 million per year for FY 2020-2026; the forecast for FY 2027 is essentially unchanged.

The revenue forecast is based on an annual Alaska North Slope (ANS) oil price of \$61 per barrel for FY 2018 and \$63 for FY 2019. The department has revised its view on near-term oil price since the fall forecast. Long-term, we continue to expect oil prices to stabilize in the low \$60's in real terms. Predicting future prices is inherently uncertain and this publication includes a table with alternative price projections and their associated revenues.

The revenue forecast is also driven by an expectation for North Slope oil production to average 521,800 barrels per day in FY 2018 and increasing to an average of 526,600 barrels per day in FY 2019. The production forecast is prepared in collaboration with the Department of Natural Resources and reflects an updated assessment on future production which slightly increased production expectations after FY 2018.

I hope you find the information provided in the spring 2018 forecast to be interesting and useful. We look forward to providing you with the next full forecast in the fall of 2018.

Sincerely

A handwritten signature in blue ink, appearing to read "Sheldon Fisher".

Sheldon Fisher,
Commissioner

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Executive Summary

General Discussion

The spring forecast is an annual update of the fall forecast of state revenues for use by the Governor, the Alaska Legislature, and the Alaska public. This update is a collaborative effort between the Department of Revenue, the Department of Natural Resources, the Alaska Permanent Fund Corporation, and the Office of Management and Budget.

State revenue comes from four major sources:

1) petroleum revenue; 2) non-petroleum revenue from sources such as taxes, charges for services, licenses and permits, fines and forfeitures; 3) federal revenue; and 4) investment revenue, primarily from the Alaska Permanent Fund and the Constitutional Budget Reserve Fund (CBRF).

Unrestricted general fund (UGF) revenue is now forecast to be \$2.3 billion in fiscal year (FY) 2018 and \$2.3 billion in FY 2019. Compared to the fall 2017 forecast, this spring forecast represents an increase in expected UGF revenue of \$256 million for FY 2018 and \$212 million for FY 2019. Expected revenue has also increased by between \$124 million and \$213 million per year for FY 2020-2026; the forecast for FY 2027 is essentially unchanged.

The spring forecast is based on a revised average Alaska North Slope (ANS) oil price forecast of \$61.00 per barrel for FY 2018, up from \$56.00 per barrel in the fall 2017 forecast, based on higher than forecasted prices over the past several months. ANS prices are expected to average \$63.00 per barrel in FY 2019, increasing with inflation to \$75.00 by

FY 2027. Real per-barrel ANS prices are expected to stabilize in the low \$60s for the forecast period. However, there is uncertainty surrounding the oil price forecast. A new Table F-1 in this publication presents several alternative price forecasts and the UGF revenue that would be associated with these alternative forecasts.

The spring forecast for ANS crude oil production revises expected production in FY 2018 from 533,430 barrels per day to 521,800 barrels per day; a decrease of less than 12,000 barrels per day from the fall 2017 forecast. This change reflects eight months of preliminary actual daily production levels as well as revised production estimates for the remainder of the fiscal year. ANS production is forecast to average 526,600 barrels per day in FY 2019, declining to 493,000 barrels per day by FY 2027. This is largely unchanged from our Fall forecast. The spring production forecast was compiled in collaboration with the Department of Natural Resources (DNR) utilizing the same method as was used for the fall 2017 production forecast.

Expenditures for cash repurchase of tax credits are not included in revenue numbers presented in the forecast but are separately estimated. In FY 2017, the state purchased \$30 million in tax credits through the Oil and Gas Tax Credit Fund (AS 43.55.028), and purchased \$75 million in FY 2018. For FY 2019, an estimated \$821 million in tax credits will be available for state repurchase, with the majority of these being credits earned in prior years. These credits are shown in Table 8-4 and include an

assumption that \$125 million of credits are transferred to producers in FY 2019 and therefore no longer subject to state purchase. The statutory appropriation to the Oil and Gas Tax Credit Fund for FY 2019 credit purchases is estimated at \$184 million, an amount that would fund only a portion of the outstanding credit certificates.

In FY 2017, total state revenue from all sources amounted to an estimated \$12.9 billion. Total state revenue for FY 2018 is expected to decrease to \$10.9 billion, due primarily to the performance of the Alaska Permanent Fund and other investments returning closer to historical levels following very strong returns in FY 2017. In FY 2019, total state revenue is expected to be \$11.2 billion.

In addition to unrestricted and restricted revenue, the department also provides information on current-year revenue subject to appropriation, as this provides an accurate depiction of the state's ability to meet its obligations to outside analysts who may not be familiar with Alaska's budget conventions. In addition to unrestricted revenue, "current-year revenue available for appropriation" also includes designated general fund revenue, realized earnings of the Permanent Fund accounted for in the Earnings Reserve, earnings of the CBRF, various royalty and tax deposits to the Constitutional Budget Reserve, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund. Current-year revenue subject to appropriation is expected to be \$7.4 billion in FY 2018 and \$6.9 billion in FY 2019.

Forecast Method Notes

The FY 2017 historic numbers in this document have been updated from the *Fall 2017 Revenue Sources Book* to reflect the latest available information about actual expenditures and collections. This change is most noticeable in the numbers for federal revenue.

When comparing forecasts provided by the department, numbers may vary between analyses, even if they came from the same data source. This can happen for many reasons and does not necessarily discount other analyses, nor should it be considered an error.

One example is in petroleum revenue forecasting, where results can differ depending on whether the department uses confidential company-specific data or statewide aggregated summary data. Another instance where differences can occur is in how uncertainty is incorporated. Depending on the analysis, uncertainties can be addressed by applying risk factors to the data, incorporating probability into the analysis and results, or providing narrative disclaimer about the uncertainty.

Therefore, even though all the department's models start with the same set of data, the results can differ depending on the aggregation of data and the handling of uncertainty.

Table 1-1: Current Year Revenue Subject to Appropriation, FY 2017 and FY 2018-2027 Forecast

(\$ millions)

Fiscal Year	History	Forecast									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Petroleum Revenue											
Unrestricted General Fund	876.4	1,800.9	1,639.2	1,646.8	1,695.6	1,687.7	1,727.0	1,779.2	1,920.3	2,063.2	2,094.6
Royalties to Alaska Permanent Fund beyond 25% dedication ¹	79.1	0.0	75.9	74.4	74.1	72.1	72.1	76.2	83.9	91.5	95.8
Tax and Royalty Settlements to CBRF ²	481.9	100.0	150.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Subtotal Petroleum Revenue	1,437.4	1,900.9	1,865.1	1,821.2	1,869.7	1,859.8	1,899.1	1,955.4	2,104.2	2,254.7	2,290.4
Non-Petroleum Revenue											
Unrestricted General Fund	460.4	495.5	542.3	548.7	556.5	566.9	582.4	593.2	604.2	615.4	626.9
Designated General Fund	395.0	410.3	369.9	373.9	376.9	379.1	381.3	383.6	386.1	388.5	391.1
Royalties to Alaska Permanent Fund beyond 25% dedication ¹	2.5	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Tax and Royalty Settlements to CBRF ²	-1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Subtotal Non-Petroleum Revenue	856.9	907.1	916.2	926.6	937.4	949.9	967.7	980.9	994.3	1,008.0	1,022.0
Investment Revenue											
Unrestricted General Fund	17.3	40.9	77.6	80.9	84.4	88.0	91.8	95.8	100.1	104.5	109.3
Designated General Fund	59.4	73.5	46.5	48.3	50.1	51.9	53.9	55.8	57.9	60.1	62.3
Constitutional Budget Reserve Fund	94.2	69.0	22.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alaska Permanent Fund (Realized Earnings) ³	3,239.3	4,422.8	3,978.1	4,140.0	4,305.0	4,466.0	4,629.0	4,802.0	4,982.0	5,169.0	5,364.0
Subtotal Investment Revenue	3,410.2	4,606.2	4,124.6	4,269.2	4,439.5	4,605.9	4,774.7	4,953.6	5,140.0	5,333.6	5,535.6
Total Revenue Subject to Appropriation	5,704.5	7,414.3	6,905.9	7,017.1	7,246.6	7,415.6	7,641.5	7,889.9	8,238.5	8,596.2	8,848.0

¹ Estimate based on deposit to Permanent Fund minus 25% of total royalties. In FY2018, only the constitutionally required 25% of royalties were deposited into the Permanent Fund.

² CBRF is an acronym for Constitutional Budget Reserve Fund.

³ Investment revenue from the Permanent Fund available for appropriation is based on realized gains, a portion of which has been used to inflation-proof the fund historically.

Table 2-1: Total State Revenue, by restriction and type

	(\$ millions)		
	History	Forecast	
	FY 2017	FY 2018	FY 2019
Unrestricted Revenue Sources			
Unrestricted General Fund Revenue			
Petroleum Revenue	876.4	1,800.9	1,639.2
Non-Petroleum Revenue	460.4	495.5	542.3
Investment Revenue	17.3	40.9	77.6
Federal Revenue	0.0	0.0	0.0
Unrestricted General Fund Revenue	1,354.1	2,337.3	2,259.1
Restricted Revenue Sources			
Designated General Fund Revenue			
Non-Petroleum Revenue	395.0	410.3	369.9
Investment Revenue	59.4	73.5	46.5
Subtotal Designated General Fund Revenue	454.4	483.8	416.5
Other Restricted Revenue			
Petroleum Revenue	822.4	413.1	566.9
Non-Petroleum Revenue	301.1	255.4	255.9
Investment Revenue	6,773.4	3,390.9	3,995.6
Subtotal Other Restricted Revenue	7,896.8	4,059.4	4,818.3
Federal Revenue			
Petroleum Revenue ¹	1.4	13.7	3.6
Federal Receipts	3,198.2	3,963.9	3,674.8
Subtotal Federal Revenue	3,199.6	3,977.5	3,678.4
Total Restricted Revenue	11,550.8	8,520.7	8,913.3
Total State Revenue	12,904.9	10,858.0	11,172.3

¹ Petroleum revenue shown in the Federal category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve - Alaska, as provided by federal law.

Table 2-2: Unrestricted General Fund Revenue, by type and detail

	(\$ millions)		
	History	Forecast	
	FY 2017	FY 2018	FY 2019
Unrestricted Petroleum Revenue			
Petroleum Taxes			
Petroleum Property Tax	120.4	116.7	110.0
Petroleum Corporate Income Tax ¹	-59.4	115.0	190.0
Oil & Gas Production Tax	134.4	654.6	418.9
Subtotal Petroleum Taxes	195.4	886.2	718.9
Royalties (including Bonuses, Rents, & Interest)			
Mineral Bonuses & Rents	15.5	29.3	19.5
Oil & Gas Royalties	676.2	878.9	896.5
Interest	-10.7	6.5	4.4
Subtotal Royalties	680.9	914.7	920.3
Unrestricted Petroleum Revenue	876.4	1,800.9	1,639.2
Unrestricted Non-Petroleum Revenue			
Non-Petroleum Taxes			
Excise Tax			
Alcoholic Beverage	20.1	20.4	20.7
Tobacco Product – Cigarette	30.0	25.8	24.9
Tobacco Product – Other	13.4	14.3	15.1
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium Tax ²	0.0	0.0	56.7
Marijuana	0.9	4.6	9.0
Motor Fuel Tax ³	34.7	0	0
Motor Fuel Tax (conservation surcharge)	6.6	6.3	6.3
Tire Fee	1.4	1.4	1.4
Subtotal Excise Tax	107.3	73.0	134.3
Corporate Income Tax	86.5	145.0	145.0
Fisheries Tax			
Fisheries Business	15.5	18.2	16.4
Fishery Resource Landing	4.9	5.2	5.9
Subtotal Fisheries Tax	20.3	23.4	22.3
Other Tax			
Charitable Gaming	2.5	2.5	2.6
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	8.2	8.4	8.7
Mining	41.4	43.0	46.4
Subtotal Other Tax	52.0	54.0	57.7
Subtotal Non-Petroleum Taxes	266.2	295.3	359.3

Table 2-2: Unrestricted General Fund Revenue, by type and detail (continued from previous page)

	(\$ millions)		
	History	Forecast	
	FY 2017	FY 2018	FY 2019
Charges for Services			
General Government	12.8	12.8	12.8
Natural Resources	1.4	1.4	1.4
Other	7.3	7.3	7.3
Subtotal Charges for Services	21.5	21.5	21.5
Fines & Forfeitures	13.2	13.2	13.2
Licenses & Permits			
Motor Vehicle	42.4	38.5	37.0
Other	3.2	3.2	3.2
Subtotal Licenses & Permits	45.6	41.7	40.2
Rents & Royalties			
Mining Rents & Royalties	11.8	15.8	13.2
Other Non-Petroleum Rents & Royalties	15.6	15.0	15.0
Subtotal Rents & Royalties	27.4	30.8	28.2
Miscellaneous Revenues and Transfers			
Miscellaneous	21.6	20.4	21.6
Alaska Capital Income Fund ⁴	25.1	32.0	28.0
Alaska Housing Finance Corporation	13.5	18.4	17.4
Alaska Industrial Development & Export Authority	6.3	12.9	4.8
Alaska Municipal Bond Bank Authority	0.0	0.0	0.0
Alaska Student Loan Corporation	0.0	1.2	0.0
Alaska Energy Authority	0.0	0.0	0.0
Alaska Natural Gas Development Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.0	0.0
Unclaimed Property	20.0	8.0	8.0
Subtotal Miscellaneous Revenues and Transfers	86.5	92.9	79.8
Unrestricted Non-Petroleum Revenue, except Federal and Investment	460.4	495.5	542.3
Investment Revenue			
Investments	15.7	39.3	76.0
Interest Paid by Others	1.6	1.6	1.6
Unrestricted Investment Revenue	17.3	40.9	77.6
Total Unrestricted Revenue	1,354.1	2,337.3	2,259.1

¹ Petroleum Corporate Income Tax collections for FY 2017 were negative due to large refunds of prior-year estimated taxes and low estimated taxes for FY 2017.

² Under current law, insurance premium tax is considered designated restricted revenue and will revert to unrestricted revenue beginning in FY 2019.

³ Starting with FY 2018, the non-aviation portion of the motor fuel tax is considered designated restricted revenue.

⁴ Beginning with the Fall 2017 forecast, transfer revenue from the Alaska Capital Income Fund is considered unrestricted revenue.

Table 2-3: Restricted Revenue, by type and category

	(\$ millions)		
	History	Forecast	
	FY 2017	FY 2018	FY 2019
Designated General Fund Revenue			
Non-Petroleum Revenue			
Taxes	98.5	137.0	86.5
Charges for Services	262.1	240.9	251.1
Fines and Forfeitures	9.2	7.1	7.1
Licenses and Permits	1.5	1.5	1.5
Rents and Royalties	4.2	4.2	4.2
Other	19.5	19.5	19.5
Subtotal	395.0	410.3	369.9
Investment Revenue			
Investments - Designated GF	1.7	3.8	6.8
Other Treasury Managed Funds	57.7	69.7	39.7
Subtotal	59.4	73.5	46.5
<hr/>			
Restricted Designated General Fund Revenue	454.4	483.8	416.5
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Other Restricted Revenue			
Petroleum Revenue			
Royalties to Alaska Permanent Fund & School Fund (includes Bonuses & Rents)	340.5	313.1	416.9
Tax and Royalty Settlements to CBRF	481.9	100.0	150.0
Subtotal	822.4	413.1	566.9
Non-Petroleum Revenue			
Taxes	92.8	100.0	100.9
Charges for Services	134.2	86.8	83.7
Fines and Forfeitures	24.2	15.9	15.7
Licenses and Permits	37.6	42.4	42.7
Rents and Royalties	5.5	3.5	6.1
Other	6.8	6.8	6.8
Subtotal	301.1	255.4	255.9
Investment Revenue			
Investments - Other Restricted	3.6	7.8	13.9
Constitutional Budget Reserve Fund	94.2	69.0	22.4
Alaska Permanent Fund (realized earnings) ¹	3,239.3	4,422.8	3,978.1
Alaska Permanent Fund (unrealized earnings) ¹	3,436.3	-1,108.7	-18.8
Subtotal	6,773.4	3,390.9	3,995.6
<hr/>			
Other Restricted Revenue	7,896.8	4,059.4	4,818.3

Table 2-3: Restricted Revenue, by type and category (continued from previous page)

	(\$ millions)		
	History	Forecast	
	FY 2017	FY 2018	FY 2019
Federal Revenue			
Federal Receipts	3,198.2	3,963.9	3,674.8
Petroleum Revenue			
NPR-A Royalties, Rents and Bonuses	1.4	13.7	3.6
Restricted Federal Revenue	3,199.6	3,977.5	3,678.4
Total Restricted Revenue	11,550.8	8,520.7	8,913.3

¹ While payouts are limited to realized revenues, both unrealized and realized are shown per Generally Accepted Accounting Principles (GAAP).

² Oil revenue shown in the Federal category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve in Alaska.

Table 2-5: Total Unrestricted General Fund Revenue, FY 2017 and FY 2018-2027 Forecast

Fiscal Year	(\$ millions)											
	History	Forecast										
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
Unrestricted Petroleum Revenue	876.4	1,800.9	1,639.2	1,646.8	1,695.6	1,687.7	1,727.0	1,779.2	1,920.3	2,063.2	2,094.6	
Unrestricted Other Revenue (except Federal & Investment)	460.4	495.5	542.3	548.7	556.5	566.9	582.4	593.2	604.2	615.4	626.9	
Unrestricted Investment Revenue	17.3	40.9	77.6	80.9	84.4	88.0	91.8	95.8	100.1	104.5	109.3	
Total Unrestricted General Fund Revenue	1,354.1	2,337.3	2,259.1	2,276.4	2,336.5	2,342.5	2,401.2	2,468.2	2,624.6	2,783.2	2,830.8	
Total Unrestricted General Fund Revenue from Petroleum	65%	77%	73%	72%	73%	72%	72%	72%	73%	74%	74%	

Table 4-4: ANS Oil & Gas Production Tax Data Summary

	History	Forecast	
	FY 2017	FY 2018	FY 2019
North Slope Price (dollars per barrel)			
ANS West Coast	49.43	61.00	63.00
Transit Costs & Other	9.70	9.33	8.87
ANS Wellhead	39.73	51.67	54.13
North Slope Production (thousand barrels per day)			
Total ANS Production	526.5	521.8	526.6
Royalty and Federal ¹	68.4	60.9	61.1
Taxable Barrels	458.1	461.0	465.5
North Slope Lease Expenditures^{2,3} (millions of dollars)			
Total North Slope Lease Expenditures			
Operating Expenditures [OPEX]	2,925.3	2,641.8	2,768.0
Capital Expenditures [CAPEX]	1,875.2	1,445.5	2,169.5
Total North Slope Expenditures	4,800.5	4,087.3	4,937.5
Deductible North Slope Lease Expenditures			
Operating Expenditures [OPEX]	2,835.6	2,631.2	2,716.6
Capital Expenditures [CAPEX]	1,646.8	1,346.9	1,770.8
Deductible North Slope Expenditures	4,482.4	3,978.1	4,487.4
State Production Tax Revenue			
Tax Revenue (millions of dollars)	134.4	654.6	418.9
Production Tax Collected per Taxable Barrel (dollars per barrel)	0.8	3.9	2.5
Statewide Production Tax Credits^{2,4} (millions of dollars)			
Credits Used against Tax Liability	493.0	1,234.0	1,425.0
Credits for Potential Purchase	30.5	75.4	763.0

¹ Royalty and Federal barrels represent the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, and barrels produced from federal offshore property.

² Lease expenditures and credits used against tax liability for FY 2017 were prepared using unaudited company-reported estimates.

³ Expenditure data for FY 2018 and FY 2019 are compiled from company-submitted expenditure forecast estimates and other documentation as provided to the department. Expenditures are shown here in two ways: (1) total estimated expenditures including for those companies with no tax liability; and (2) estimated deductible expenditures for only those companies with a tax liability.

⁴ Production tax credits shown include all production tax credits and all areas of the state. Assumptions for the \$12 million credits for small Alaska producers are included in the table. Per-Taxable-Barrel credits for oil not eligible for the gross value reduction may not reduce a producer's liability below the minimum tax; that limitation is reflected in these estimates.

Table 8-4: Historical Production Tax Credits and Forecast Detail, FY 2008-2027

Fiscal Year	Millions of Dollars									
	Historical									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 ¹
Credits Purchased by the State of Alaska										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	*	173	223	399	267	*	*	203	*	*
Credits under AS 43.55.025 ²	*	14	23	12	53	*	*	21	*	*
Total North Slope	53	187	246	411	320	261	281	224	212	*
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	*	*	*	*	29	*	*	384	*	30
Credits under AS 43.55.025 ²	*	*	*	*	4	*	*	21	*	0
Credits under AS 43.20 ³	*	*	*	*	0	*	15	0	*	0
Total Non-North Slope	1.1	7	4	39	33	108	311.6	404	287	30
Total Credits Purchased by the State	54	193	250	450	353	369	592.1	628	498	30
Credits Used Against Tax Liability^{4,5}										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	219	279	339	313	306	486	332	0	*	*
Transitional Investment Credit: AS 43.55.023(i)	73	0	0	0	*	*				
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j) ⁶							516	524	61	453
Small-Producer Credit, AS 43.55.024(a) and (c)	*	*	*	*	*	*	*	*	*	*
Credits under AS 43.55.025 ²	*	*	*	*	*	*	*	*	*	*
Total North Slope	368	328	402	345	347	536	907	575	111	493
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	*	0	*	11	*	*	*	*	*	*
Small-Producer Credit, AS 43.55.024(a) and (c)	*	6	*	6	*	*	*	*	*	*
Total Non-North Slope	10	6	10	17	16	14	12	10	5	1
Total Credits Used Against Tax Liability	378	334	412	361	363	550	919	585	117	494
Total Credits North Slope	421	*	647	756	667	797	1,188	799	323	493
Total Credits Non-North Slope	11	*	14	56	49	122	323	414	292	31
Total Statewide Production Tax Credits	432	526	662	811	716	918	1,511	1,213	615	524
Carried-Forward Credits Balance for Companies Not Eligible for State Purchase⁷	0	0	0	0	0	0	0	0	0	141
Tax Value of Carried-Forward Annual Losses⁸										

* Data cannot be reported due to confidentiality constraints.

¹ These numbers are preliminary pending annual returns.

² Credits under AS 43.55.025 include the Alternative Credit for Exploration, Frontier Basin Credit, and Cook Inlet Jack-up Rig Credit.

³ Credits under AS 43.20 include the Gas Exploration and Development Credit, Gas Storage Facility Credit, In-State Gas Refinery Credit, and the LNG Storage Facility Credit.

⁴ The Education Credit, AS 43.55.019, though not reported in its own credit category in the summary, was less than \$1 million in each year reported and is calculated in the total.

Table 8-4: Historical Production Tax Credits and Forecast Detail, FY 2008-2027 (continued)

	Millions of Dollars									
	Forecast									
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Credits Purchased by the State										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	49	396	5	0	0	0	0	0	0	0
Credits under AS 43.55.025 ²	2	20	0	0	0	0	0	0	0	0
Total North Slope	51	416	5	0	0	0	0	0	0	0
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	23	256	4	0	0	0	0	0	0	0
Credits under AS 43.55.025 ²	1	62	4	0	0	0	0	0	0	0
Credits under AS 43.20 ³	1	30	30	15	0	0	0	0	0	0
Total Non-North Slope	24	348	38	15	0	0	0	0	0	0
Total Credits Purchased by the State	75	763	43	15	0	0	0	0	0	0
Credits Used Against Tax Liability^{4, 5}										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b)	107	43	16	0	0	0	0	0	0	0
Transitional Investment Credit: AS 43.55.023(i)										
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j) ⁶	1097	1238	1202	1174	1175	1186	1177	1170	1168	1155
Small-Producer Credit, AS 43.55.024(a)(c)	19	13	13	13	7	1	2	3	0	0
Credits under AS 43.55.025 ²	0	125	0	0	0	0	0	0	0	0
Total North Slope	1222	1419	1231	1187	1182	1187	1179	1172	1168	1155
Non-North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-Forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	7	0	0	0	0	0	0	0	0	0
Small-Producer Credit, AS 43.55.024(a)(c)	5	7	6	6	4	4	4	4	0	0
Total Non-North Slope	11	7	6	6	4	4	4	4	0	0
Total Credits Used Against Tax Liability	1234	1425	1237	1192	1186	1191	1183	1176	1168	1155
Total Credits North Slope	1274	1834	1235	1187	1182	1187	1179	1172	1168	1155
Total Credits Non-North Slope	36	354	44	21	4	4	4	4	0	0
Total Statewide Production Tax Credits	1,309	2,188	1,279	1,207	1,186	1,191	1,183	1,176	1,168	1,155
Carried-Forward Credits Balance for Companies Not Eligible for State Purchase⁷										
	91	60	45	45	43	43	42	42	41	40
Tax Value of Carried-Forward Annual Losses⁸	16	167	513	911	1400	1925	2365	2624	2835	3011

⁵ For historical credits against tax liability, geographic location was determined by attributing all .023(l) credits to Non-North Slope, all .025 Credits to North Slope, and the other credits were placed according to where the company primarily operated. Since multiple companies had operations in multiple areas, these numbers should be treated as rough estimates.

⁶ For FY 2014, the Per-Taxable-Barrel Credit was in effect for only the last six months of the fiscal year. Credits applied against liability in the forecast are limited by a company's tax liability including the minimum tax.

⁷ This row includes estimates of outstanding credits earned prior to July 1, 2017 for companies with over 50,000 BOE of production or after July 1, 2017 for all companies. It is assumed that these credits are carried forward until applied against a future tax liability.

⁸ Tax value is calculated by multiplying the amount of carried forward annual loss by the statutory 35% tax rate.

Table A-3: Petroleum Revenue, by restriction and type

(\$ millions)

History¹

Fiscal Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Unrestricted Petroleum Revenue										
Petroleum Property Tax	81.5	111.2	118.8	110.6	111.2	99.3	128.1	125.2	111.7	120.4
Petroleum Corporate Income Tax	605.8	492.2	446.1	542.1	568.8	434.6	307.6	94.8	-58.8	-59.4
Production Tax	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6	176.8	125.9
Oil and Gas Hazardous Release	11.7	11.1	10.3	9.7	9.4	7.8	8.8	8.1	9.2	8.6
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties-Net ²	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1	840.3	676.2
Bonuses, Rents & Interest-Net ^{2,3}	25.5	14.4	8.0	22.0	8.9	19.4	27.4	26.1	30.3	4.8
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unrestricted Petroleum Revenue	9,956.0	5,181.0	4,912.9	7,048.9	8,857.8	6,352.0	4,762.8	1,687.9	1,109.5	876.4
Cumulative Unrestricted Petroleum Revenue ⁴	76,247	81,428	86,340	93,389	102,247	108,599	113,362	115,050	116,159	117,036
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	5.2	14.8	21.3	3.0	4.8	3.6	6.8	3.2	1.8	1.4
Royalties to AK Permanent Fund	834.0	659.8	696.1	857.3	904.9	842.1	773.7	510.4	390.5	334.5
Royalties to Public School Fund	16.5	11.0	11.1	13.6	14.7	13.8	12.5	7.9	6.4	6.0
CBRF Deposits	476.4	202.6	552.7	167.3	102.1	357.4	177.4	149.9	119.1	481.9
Total Restricted Petroleum Revenue	1,332.1	888.2	1,281.2	1,041.2	1,026.5	1,216.9	970.4	671.4	517.8	823.7

¹ Historical petroleum revenue can be found on the Tax Division's website at: <http://www.tax.alaska.gov/sourcesbook/qr.aspx?Chapter=16&FY=2017>.

² Net of Permanent Fund, Public School Trust Fund, and CBRF deposits.

³ This category is primarily petroleum revenue.

⁴ Based on revenue beginning in FY 1959.

Table A-3: Petroleum Revenue, by restriction and type (continued)

(\$ millions)

Forecast

Fiscal Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Unrestricted Petroleum Revenue										
Petroleum Property Tax	116.7	110.0	107.1	105.3	103.9	102.3	100.6	98.7	96.4	94.0
Petroleum Corporate Income Tax	115.0	190.0	205.0	205.0	210.0	215.0	215.0	225.0	235.0	235.0
Oil and Gas Production Tax	645.9	410.0	440.8	483.4	479.9	505.7	546.6	649.9	754.4	776.7
Oil and Gas Hazardous Release	8.7	8.9	9.0	8.8	8.5	8.3	8.2	8.2	8.2	8.1
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties-Net ²	878.9	896.5	861.0	869.3	861.6	871.8	884.9	914.7	945.5	957.0
Bonuses, Rents & Interest-Net ^{2,3}	35.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unrestricted Petroleum Revenue	1,800.9	1,639.2	1,646.8	1,695.6	1,687.7	1,727.0	1,779.2	1,920.3	2,063.2	2,094.6
Cumulative Unrestricted Petroleum Revenue ⁴	118,837	120,476	122,123	123,818	125,506	127,233	129,012	130,932	132,996	135,090
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	13.7	3.6	8.4	10.1	10.8	9.6	10.0	11.1	12.7	14.6
Royalties to AK Permanent Fund	306.9	410.2	396.4	398.7	393.5	396.8	406.7	427.0	447.5	457.0
Royalties to Public School Fund	6.1	6.7	6.4	6.5	6.4	6.5	6.6	6.9	7.1	7.2
CBRF Deposits	100.0	150.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Restricted Petroleum Revenue	426.7	570.5	511.2	515.3	510.7	512.9	523.4	544.9	567.3	578.9

¹ Historical petroleum revenue can be found on the Tax Division's website at: <http://www.tax.alaska.gov/sourcesbook/qr.aspx?Chapter=16&FY=2017>.

² Net of Permanent Fund, Public School Trust Fund, and CBRF deposits.

³ This category is primarily petroleum revenue.

⁴ Based on revenue beginning in FY 1959.

Table B-2: Price Difference, Fall 2017 forecast and Spring 2018 forecast

	(\$ per barrel of oil)									
Fiscal Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Fall 2017 Forecast										
ANS West Coast	56.00	57.00	58.00	61.00	64.00	65.00	66.00	69.00	72.00	75.00
ANS Wellhead Weighted Average All Destinations	46.20	47.14	47.96	50.69	53.37	54.11	54.95	57.82	60.69	63.51
Spring 2018 Forecast										
ANS West Coast	61.00	63.00	64.00	66.00	67.00	69.00	70.00	72.00	74.00	75.00
ANS Wellhead Weighted Average All Destinations	51.67	54.13	55.05	56.90	57.45	59.01	59.84	61.75	63.59	64.37
Dollar Amount Change from Prior Forecast										
ANS West Coast	5.00	6.00	6.00	5.00	3.00	4.00	4.00	3.00	2.00	0.00
ANS Wellhead Weighted Average All Destinations	5.46	6.98	7.08	6.21	4.08	4.90	4.89	3.93	2.90	0.85
Percent Change from Prior Forecast										
ANS West Coast	8.9%	10.5%	10.3%	8.2%	4.7%	6.2%	6.1%	4.3%	2.8%	0.0%
ANS Wellhead Weighted Average All Destinations	11.8%	14.8%	14.8%	12.3%	7.6%	9.0%	8.9%	6.8%	4.8%	1.3%

Table C-1: Production Difference, Fall 2017 forecast and Spring 2018 forecast

	(thousands of barrels per day)									
Fiscal Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Fall 2017 Forecast										
Alaska North Slope	533.4	525.7	526.8	518.3	502.5	492.6	491.1	493.4	494.8	492.9
Non-North Slope	16.7	22.2	17.9	15.4	13.9	13.0	12.2	11.6	11.0	10.5
Total	550.1	547.9	544.7	533.7	516.5	505.6	503.4	505.1	505.9	503.4
Spring 2018 Forecast										
Alaska North Slope	521.8	526.6	536.1	525.3	508.7	496.9	493.9	495.3	495.9	493.0
Non-North Slope	17.7	22.1	18.2	15.8	14.5	13.6	12.9	12.4	11.9	11.4
Total	539.6	548.7	554.3	541.1	523.2	510.5	506.8	507.7	507.7	504.4
Volume Change From Prior Forecast										
Alaska North Slope	-11.6	1.0	9.3	7.0	6.2	4.3	2.7	1.8	1.1	0.1
Non-North Slope	1.1	-0.1	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.9
Total	-10.5	0.8	9.6	7.4	6.8	5.0	3.4	2.6	1.9	1.0
Percent Change From Prior Forecast										
Alaska North Slope	-2.2%	0.2%	1.8%	1.3%	1.2%	0.9%	0.6%	0.4%	0.2%	0.0%
Non-North Slope	6.4%	-0.6%	1.7%	2.9%	3.9%	4.8%	5.7%	6.7%	7.6%	8.4%
Total	-1.9%	0.1%	1.8%	1.4%	1.3%	1.0%	0.7%	0.5%	0.4%	0.2%

Table F-1: Unrestricted General Fund Revenue Under Selected Price Paths ¹

	Price Per Barrel in \$; Unrestricted General Fund Revenue in \$ millions									
Fiscal Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	
DOR Spring Official ²										
Price Per Barrel	63	64	66	67	69	70	72	74	75	
Unrestricted General Fund Revenue	2,260	2,280	2,340	2,340	2,400	2,470	2,620	2,780	2,830	
NYMEX Futures ³										
Price Per Barrel	62	59	57	56	56	56	56	56	-	
Unrestricted General Fund Revenue	2,210	2,090	2,010	1,950	1,940	1,950	1,950	1,960	-	
EIA STEO ⁴										
Price Per Barrel	60	-	-	-	-	-	-	-	-	
Unrestricted General Fund Revenue	2,130	-	-	-	-	-	-	-	-	
EIA AEO Base/Reference ⁵										
Price Per Barrel	-	67	80	88	93	98	102	106	110	
Unrestricted General Fund Revenue	-	2,460	3,350	3,880	4,340	4,680	5,110	5,400	5,640	
Analysts: Average ⁶										
Price Per Barrel	64	66	67	64	-	-	-	-	-	
Unrestricted General Fund Revenue	2,330	2,380	2,390	2,210	-	-	-	-	-	

¹ All price forecasts rounded to the nearest dollar. Unrestricted General Fund Revenue was estimated taking into account only the direct effects of the different price forecasts. ANS production and operator capital/operating expenses were held constant across all price forecasts. No differential was assumed between those forecasts in Brent and those in ANS. Dashes indicate that a forecast for this FY is either not available or inapplicable.

² DOR Spring Official forecast: Released 3/16/2018; Crude Forecast ANS West Coast; Original forecast in FY.

³ NYMEX Futures: Retrieved: 3/9/2018; Crude Traded Brent; FY calculated based on monthly prices.

⁴ EIA STEO (Short-Term Energy Outlook): Released 3/6/2018; Crude Forecast Brent; FY calculated based on monthly prices.

⁵ EIA AEO (Annual Energy Outlook) forecasts: Released 2/6/2018; Crude Forecast Brent; Converted to FY by assuming 6 months of each calendar year's forecast.

⁶ Analysts Forecasts: Retrieved 3/9/2018; Individual forecasts released between 01/22/2018 and 03/02/2018; Crude Forecast Brent.