



# Revenue Sources Book 2016 Spring

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THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

**Department of Revenue**

COMMISSIONER'S OFFICE

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April 7, 2016

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

With this letter, I present to you the Department of Revenue's spring 2016 forecast. The spring forecast is an annual update to the fall forecast of state revenues for you, the Alaska Legislature, and the Alaska public. This update is a collaborative effort among the Department of Revenue, the Alaska Permanent Fund Corporation, and the Office of Management and Budget. We produced and released a preliminary forecast earlier to aid in the budget discussions. A more comprehensive forecast will occur in the fall.

General fund unrestricted revenue (GFUR) is now forecast to be \$1.3 billion in fiscal year FY 2016 and \$1.2 billion in FY 2017. The revenue forecast is driven by an expectation of oil production of at least 500 thousand barrels per day and an average price of oil remaining between \$30 and \$40 per barrel for the next 15 months. The FY 2016 forecast represents a decrease in expected GFUR of about \$250 million, or about a 16% decrease, compared to the projection in the fall 2015 forecast.

The revenue forecast is based on a revised oil price forecast of about \$40 per barrel versus \$50 in the fall. The forecast prices over the next ten years have also been reduced to reflect anticipated future lower prices. The average price is now not forecast to reach \$60 until FY 2021. However, with the global contraction on investment in production, and spare capacity that represents less than three percent of global demand – we also recognize the potential for significant price volatility over the next few years.

I hope you find the information provided in the spring 2016 forecast to be interesting and useful. We look forward to providing you with a new forecast in the fall of 2016.

Sincerely

A handwritten signature in blue ink that reads "Randall Hoffbeck".

Randall Hoffbeck,  
Commissioner

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# Executive Summary

## General Discussion

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

State revenue comes from four major sources:

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

General fund unrestricted revenue (GFUR) is now forecast to be \$1.3 billion in fiscal year (FY) 2016 and \$1.2 billion in FY 2017. The revenue forecast is driven by an expectation of oil production of at least 500 thousand barrels per day and an average price of oil remaining between \$30 and \$40 per barrel for the next 15 months. The FY 2016 forecast represents a decrease in expected GFUR of about \$250 million, or about a 16% decrease, compared to the projection in the fall 2015 forecast. Compared to the fall 2015 forecast, the revenue forecast for spring 2016 projects lower revenue over each of the next ten years to reflect a lower expected price path.

The spring forecast for North Slope crude oil production revises expected production in FY 2016 from 500.2 thousand barrels per day to 520.2 thousand barrels per day; a meaningful increase of about 20,000 barrels per day from the fall 2015 forecast. This change reflects nine months of actual daily production levels.

The revenue forecast is based on a revised oil price forecast of about \$40 per barrel versus \$50 for FY 2016, based on actual prices realized over the past several months and an apparent stabilization of ANS oil prices between \$30-40 per barrel. The forecast prices over the next ten years have also been reduced to reflect anticipated lower prices. The average price is now not forecast to reach \$60 until FY 2021. The department makes use of both probabilistic and deterministic price forecasting methods to view ranges of potential prices. This methodology is described on page 9.

Petroleum is forecast to be between 55-60% of the unrestricted revenue for FY 2016 and 2017 (see page 15). This is a significant decrease from what was observed prior to the oil price collapse when oil revenue represented at least 88% or more of GFUR. State revenues will continue to be sensitive to oil price and oil production, as well as the cost of production.

Expenditures for cash repurchase of tax credits are not included in revenue numbers presented in the forecast but are separately estimated. In FY 2015, the state purchased \$628 million in tax credits through the Oil and Gas Tax Credit Fund (AS 43.55.028), and will purchase \$500 million in FY 2016. In FY 2017, credits subject to purchase are expected to amount to \$775 million under current law. The FY 2017 estimate includes newly earned credits as well as eligible credits beyond the \$500 million cap for FY 2016. These credits are shown on pages 12 and 13.

In FY 2015, total state revenue from all sources amounted to \$8.5 billion. Total state revenue for FY 2016 is expected to be only \$3.7 billion, due to large unrealized losses in the Alaska Permanent Fund. In FY 2017, total state revenue is expected to rebound to about \$8.2 billion.

A new presentation of revenue introduced in the Fall 2015 Revenue Sources Book takes into account what revenues are available for appropriation, regardless of customary designations or uses. There is expected to be about \$3.9 billion in current-year revenue available for appropriation for FY 2016 and about \$4.3 billion for FY 2017. For comparison, the state had \$6.0 billion in current-year revenue available for appropriation in FY 2015. In addition to unrestricted

<sup>(1)</sup> Alaska's fiscal year runs from July 1 through June 30.

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

	(\$ millions)		
	History	Forecast	
	FY 2015	FY 2016	FY 2017
<b>Unrestricted Revenue Sources</b>			
<b>Unrestricted General Fund Revenue</b>			
Petroleum Revenue	1,687.9	801.1	704.7
Non-Petroleum Revenue	520.7	516.7	506.4
Investment Revenue	47.9	19.0	35.4
Federal Revenue	0.0	0.0	0.0
<b>Unrestricted General Fund Revenue</b>	<b>2,256.5</b>	<b>1,336.9</b>	<b>1,246.4</b>
<b>Restricted Revenue Sources</b>			
<b>Designated General Fund Revenue</b>			
Non-Petroleum Revenue	285.9	323.9	329.7
Investment Revenue	17.7	(6.6)	36.7
<b>Subtotal Designated General Fund Revenue</b>	<b>303.6</b>	<b>317.3</b>	<b>366.4</b>
<b>Other Restricted Revenue</b>			
Petroleum Revenue	667.3	328.1	318.0
Non-Petroleum Revenue	205.3	240.1	277.9
Investment Revenue	2,585.7	(2,022.5)	2,856.6
<b>Subtotal Other Restricted Revenue</b>	<b>3,458.4</b>	<b>(1,454.3)</b>	<b>3,452.5</b>
<b>Federal Revenue</b>			
Petroleum Revenue <sup>(1)</sup>	3.2	4.3	4.3
Federal Receipts	2,512.7	3,459.2	3,149.4
<b>Subtotal Federal Revenue</b>	<b>2,515.9</b>	<b>3,463.5</b>	<b>3,153.7</b>
<b>Total Restricted Revenue</b>	<b>6,277.8</b>	<b>2,326.5</b>	<b>6,972.6</b>
<b>Total State Revenue</b>	<b>8,534.3</b>	<b>3,663.3</b>	<b>8,219.0</b>

revenue, “current-year revenue available for appropriation” also includes designated general fund revenue, as well as 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.

The totals of some tables in this publication may not equal the sum of components due to rounding.

<sup>(1)</sup> 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 2015	FY 2016	FY 2017
<b>Unrestricted Petroleum Revenue</b>			
<b>Petroleum Taxes</b>			
Petroleum Property Tax	125.2	133.9	118.3
Petroleum Corporate Income Tax	94.8	0.0	30.0
Oil & Gas Production Tax	389.7	153.4	67.9
<b>Subtotal Petroleum Taxes</b>	<b>609.7</b>	<b>287.3</b>	<b>216.2</b>
<b>Royalties (including Bonuses, Rents, &amp; Interest)</b>			
Mineral Bonuses & Rents	22.4	8.7	8.7
Oil & Gas Royalties	1,052.1	501.0	475.6
Interest	3.7	4.2	4.2
<b>Subtotal Royalties</b>	<b>1,078.2</b>	<b>513.8</b>	<b>488.5</b>
<b>Unrestricted Petroleum Revenue</b>	<b>1,687.9</b>	<b>801.1</b>	<b>704.7</b>
<b>Unrestricted Non-Petroleum Revenue</b>			
<b>Non-Petroleum Taxes</b>			
<b>Excise Tax</b>			
Alcoholic Beverage	17.7	19.8	19.9
Tobacco Product – Cigarette	27.7	28.9	27.2
Tobacco Product – Other	12.8	14.2	14.9
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium	59.1	60.6	60.0
Marijuana	0.0	0.0	12.0
Motor Fuel Tax	41.9	42.6	43.2
Motor Fuel Tax (conservation surcharge)	0.0	8.0	8.2
Tire Fee	1.5	1.5	1.6
Vehicle Rental	9.7	9.8	9.9
<b>Subtotal Excise Tax</b>	<b>170.6</b>	<b>185.7</b>	<b>197.1</b>
<b>Corporate Income Tax</b>	<b>136.2</b>	<b>109.6</b>	<b>99.3</b>
<b>Fisheries Tax</b>			
Fisheries Business	21.3	13.7	16.0
Fishery Resource Landing	5.1	5.5	6.0
<b>Subtotal Fisheries Tax</b>	<b>26.4</b>	<b>19.3</b>	<b>21.9</b>
<b>Other Tax</b>			
Charitable Gaming	2.5	2.5	2.5
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	6.6	6.7	6.7
Mining	38.6	24.4	19.7
<b>Subtotal Other Tax</b>	<b>47.7</b>	<b>33.6</b>	<b>28.9</b>
<b>Subtotal Non-Petroleum Taxes</b>	<b>381.0</b>	<b>348.1</b>	<b>347.2</b>



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

	(\$ millions)		
	History FY 2015	Forecast FY 2016      FY 2017	
<b>Charges for Services</b>			
General Government	13.9	12.8	12.8
Natural Resources	(0.6)	1.4	1.4
Other	6.8	7.3	7.3
<b>Subtotal Charges for Services</b>	<b>20.1</b>	<b>21.5</b>	<b>21.5</b>
<b>Fines &amp; Forfeitures</b>	<b>11.5</b>	<b>11.4</b>	<b>11.4</b>
<b>Licenses &amp; Permits</b>			
Alcoholic Beverage Licenses	1.3	1.3	1.3
Motor Vehicle	29.5	38.0	35.5
Other	3.6	3.2	3.2
<b>Subtotal Licenses &amp; Permits</b>	<b>34.4</b>	<b>42.5</b>	<b>40.0</b>
<b>Rents &amp; Royalties</b>			
Mining Rents & Royalties	6.0	5.0	4.7
Other Non-Petroleum Rents & Royalties	30.3	30.3	30.3
<b>Subtotal Rents &amp; Royalties</b>	<b>36.3</b>	<b>35.3</b>	<b>34.9</b>
<b>Miscellaneous Revenues and Transfers</b>			
Miscellaneous	16.4	21.6	21.6
Alaska Housing Finance Corporation	3.1	8.7	13.5
Alaska Industrial Development & Export Authority	10.2	17.7	6.3
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	0.6	0.0	0.0
Alaska Energy Authority	0.2	1.0	1.0
Alaska Natural Gas Development Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.0	0.0
Unclaimed Property	7.0	8.0	8.0
<b>Subtotal Transfers</b>	<b>37.5</b>	<b>57.9</b>	<b>51.3</b>
<b>Unrestricted Non-Petroleum Revenue, except federal and investment</b>	<b>520.7</b>	<b>516.7</b>	<b>506.4</b>
<b>Investment Revenue</b>			
Investments	46.3	17.4	33.8
Interest Paid by Others	1.6	1.6	1.6
<b>Unrestricted Investment Revenue</b>	<b>47.9</b>	<b>19.0</b>	<b>35.4</b>
<b>Total Unrestricted Revenue</b>	<b>2,256.5</b>	<b>1,336.9</b>	<b>1,246.4</b>

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

	(\$ millions)		
	History	Forecast	
	FY 2015	FY 2016	FY 2017
<b>Designated General Fund Revenue</b>			
<b>Non-Petroleum Revenue</b>			
Taxes	30.4	30.0	29.9
Charges for Services	227.4	260.9	266.9
Fines and Forfeitures	7.6	9.1	9.0
Licenses and Permits	0.1	0.2	0.2
Rents and Royalties	3.4	4.2	4.2
Other	16.9	19.5	19.5
<b>Subtotal</b>	<b>285.9</b>	<b>323.9</b>	<b>329.7</b>
<b>Investment Revenue</b>			
Investments - Designated GF	2.0	2.1	2.7
Other Treasury Managed Funds	15.7	(8.7)	34.0
<b>Subtotal</b>	<b>17.7</b>	<b>(6.6)</b>	<b>36.7</b>
<b>Restricted Designated General Fund Revenue</b>	<b>303.6</b>	<b>317.3</b>	<b>366.4</b>
<b>Other Restricted Revenue</b>			
<b>Oil Revenue</b>			
Royalties to Alaska Permanent Fund & School Fund (includes Bonuses & Rents)	518.3	228.1	218.0
Tax and Royalty Settlements to CBRF	149.0	100.0	100.0
<b>Subtotal</b>	<b>667.3</b>	<b>328.1</b>	<b>318.0</b>
<b>Non-Petroleum Revenue</b>			
Taxes	89.7	83.4	85.4
Charges for Services	45.2	89.1	125.5
Fines and Forfeitures	23.6	23.5	23.3
Licenses and Permits	33.9	32.3	32.3
Rents and Royalties	6.0	5.0	4.7
Other	6.9	6.8	6.8
<b>Subtotal</b>	<b>205.3</b>	<b>240.1</b>	<b>277.9</b>
<b>Investment Revenue</b>			
Investments - Other Restricted	4.1	4.2	5.4
Constitutional Budget Reserve Fund	197.7	54.8	67.0
Alaska Permanent Fund (GASB)(realized earnings) <sup>(1)</sup>	2,931.4	2,055.9	2,501.1
Alaska Permanent Fund (GASB)(unrealized earnings) <sup>(1)</sup>	(547.5)	(4,137.4)	283.1
<b>Subtotal</b>	<b>2,585.7</b>	<b>(2,022.5)</b>	<b>2,856.6</b>
<b>Other Restricted Revenue</b>	<b>3,458.4</b>	<b>(1,454.3)</b>	<b>3,452.5</b>

<sup>(1)</sup> Both realized and unrealized gains and losses are included per Government Accounting Standards Board(GASB) Statement 34 as interpreted by the Finance Division of the Department of Administration in its *Comprehensive Annual Financial Report*.

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

	(\$ millions)		
	History	Forecast	
	FY 2015	FY 2016	FY 2017
<b>Federal Revenue</b>			
Federal Receipts	2,512.7	3,459.2	3,149.4
<b>Oil Revenue</b>			
NPR-A Royalties, Rents and Bonuses	3.2	4.3	4.3
<b>Restricted Federal Revenue</b>	<b>2,515.9</b>	<b>3,463.5</b>	<b>3,153.7</b>
<b>Total Restricted Revenue</b>	<b>6,277.8</b>	<b>2,326.5</b>	<b>6,972.6</b>

**Table 2-4: Ten-Year Forecast of Total Unrestricted General Fund Revenue**

FY	(\$ millions)									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Unrestricted Oil Revenue	801.1	704.7	787.5	872.7	938.9	1,007.5	1,042.0	1,105.9	1,056.7	1,076.4
Unrestricted Other Revenue (except Federal & Investment)	516.7	506.4	514.8	520.7	522.6	528.4	531.3	541.0	547.3	553.7
Unrestricted Investment Revenue	19.0	35.4	44.0	52.6	61.1	69.7	78.3	86.8	95.4	104.0
<b>Total Unrestricted General Fund Revenue</b>	<b>1,336.9</b>	<b>1,246.4</b>	<b>1,346.3</b>	<b>1,445.9</b>	<b>1,522.6</b>	<b>1,605.5</b>	<b>1,651.5</b>	<b>1,733.7</b>	<b>1,699.3</b>	<b>1,734.1</b>
Total Unrestricted General Fund Revenue from Petroleum	60%	57%	58%	60%	62%	63%	63%	64%	62%	62%

## About the Forecast Methodology

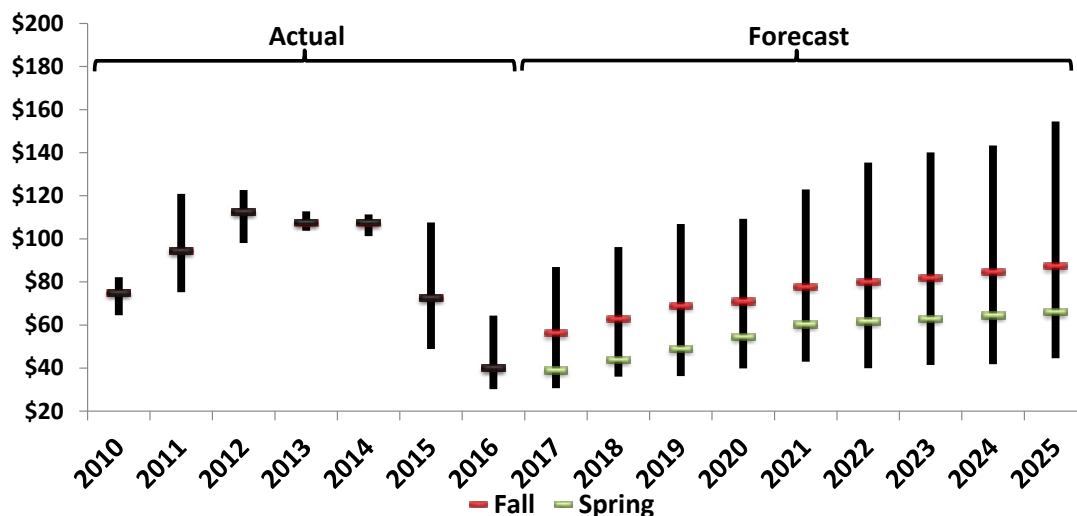
At times, the department's forecast numbers may appear different for different analyses even if they come from the same data source. This can happen for many reasons and does not necessarily discount other analyses.

One example is in petroleum revenue forecasting, where results can differ depending on whether the department uses confidential company-specific data versus statewide aggregated summary data.

Another example where differences can occur is when the department provides deterministic and probabilistic results of oil revenue calculations.

The *Revenue Sources Book* relies more heavily on deterministic (single-value) inputs and results. A probabilistic analysis of oil revenues brings the possibility of higher prices into the petroleum tax calculation. As such, results can be either lower or higher than a deterministic analysis utilizing the same basic price data.

Therefore, even though all the department's models start with the same set of data, the results can differ depending on assumptions about central tendency and the distribution of potential results.



The above figure shows how, while the probabilistic price distribution remains unchanged, the deterministic forecast has been shifted between fall 2015 and spring 2016. In this manner, price volatility can be reflected in the department's models and analysis and still provided deterministic outputs for budgeting and other purposes.

**Table 2-5: Current Year Revenue Subject to Appropriation <sup>(1)</sup>**

	(\$ millions)		
	History	Forecast	
	FY 2015	FY 2016	FY 2017
<b>Petroleum Revenue</b>			
Unrestricted General Fund	1,687.9	801.1	704.7
Royalties to Alaska Permanent Fund beyond 25% dedication <sup>(2)</sup>	111.3	38.9	37.8
Tax and Royalty Settlements to CBRF	149.0	100.0	100.0
Federal Revenue	0.0	0.0	0.0
<b>Subtotal Petroleum Revenues</b>	<b>1,948.1</b>	<b>940.0</b>	<b>842.5</b>
<b>Non-Petroleum Revenue</b>			
Unrestricted General Fund	520.7	516.7	506.4
Designated General Fund	285.9	323.9	329.7
Royalties to Alaska Permanent Fund beyond 25% dedication <sup>(2)</sup>	2.9	2.4	2.2
Tax and Royalty Settlements to CBRF	0.1	0.1	0.1
<b>Subtotal Non-Petroleum Revenues</b>	<b>809.6</b>	<b>843.1</b>	<b>838.4</b>
<b>Investment Revenue</b>			
Unrestricted General Fund	47.9	19.0	35.4
Designated General Fund	17.7	(6.6)	36.7
Constitutional Budget Reserve Fund	197.7	54.8	67.0
Alaska Permanent Fund - Realized Earnings	2,931.4	2,055.9	2,501.1
<b>Subtotal Investment Revenues</b>	<b>3,194.7</b>	<b>2,123.1</b>	<b>2,640.2</b>
<b>Total Revenue Subject to Appropriation</b>	<b>5,952.4</b>	<b>3,906.2</b>	<b>4,321.1</b>
<b>Total State Revenue</b>	<b>8,534.3</b>	<b>3,663.3</b>	<b>8,219.0</b>

<sup>(1)</sup> This represents only the largest known categories of current-year funds subject to appropriation. A comprehensive review of all accounts in the state accounting system would likely reveal additional revenues subject to appropriation beyond those identified here.

<sup>(2)</sup> Estimate based on deposit to Permanent Fund minus 25% of total royalties.

**Table 4-3: ANS Oil & Gas Production Tax Data Summary**

	(\$ millions)		
	History	Forecast	
	FY 2015	FY 2016	FY 2017
<b>North Slope Price and Production</b>			
Price of ANS WC (in \$/barrel)	72.58	39.99	38.89
Transit Costs & Other (in \$/barrel)	9.74	10.50	10.86
ANS Wellhead (in \$/barrel)	62.83	29.49	28.03
<b>North Slope Production</b>			
Total ANS Production (in mbbbls/day)	500.7	520.2	507.1
Royalty and federal (in mbbbls/day) <sup>(1)</sup>	66.2	66.3	62.0
Taxable Barrels (in mbbbls/day)	434.5	453.9	445.2
<b>North Slope Lease Expenditures<sup>(2)(3)</sup></b>			
Total North Slope Lease Expenditures (in \$ millions)			
Operating Expenditures [OPEX]	3,438.8	3,235.2	3,075.9
Capital Expenditures [CAPEX]	3,992.0	3,315.1	2,970.3
Total North Slope Expenditures	7,430.8	6,550.3	6,046.2
Deductible North Slope Lease Expenditures (in \$ millions)			
Operating Expenditures [OPEX]	3,318.6	2,471.9	2,422.7
Capital Expenditures [CAPEX]	3,595.8	2,248.9	2,040.0
Deductible North Slope Expenditures	6,914.4	4,720.8	4,462.6
<b>State Production Tax Revenue<sup>(4)</sup></b>			
Tax Revenue (in \$ millions)	389.7	153.4	67.9
Production Tax Collected per Taxable Barrel	2.5	0.9	0.4
<b>Statewide Production Tax Credits<sup>(2)(5)</sup></b>			
Credits Used against Tax Liability (in \$ millions)	664.0	70.0	135.0
Credits for Potential Purchase (in \$ millions)	628.0	500.0	775.0

<sup>(1)</sup> Royalty and federal barrels represent the department's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and other untaxed barrels.

<sup>(2)</sup> Lease expenditures and credits used against tax liability for FY 2015 were prepared using unaudited company-reported estimates.

<sup>(3)</sup> Expenditure data for FY 2016 and FY 2017 are compiled from company submitted expenditure forecast estimates and other documentation as provided to the DOR. Expenditures shown here are shown in two ways: (1) total estimated allowable expenditures for all companies on the North Slope; and (2) estimated "deductible expenditures" defined for purposes of this analysis as the amount of total allowable expenditures for each company that does not exceed their gross value at point of production. Note that for producers with a net operating loss, only a portion of expenditures will be counted in the "deductible expenditures" category.

<sup>(4)</sup> Production tax is calculated on a company specific basis, therefore the aggregated data reported here will not generate the total tax revenue shown. For an illustration of the tax calculation, see Appendix E in the 2015 Fall Revenue Sources Book.

<sup>(5)</sup> 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 2007-FY 2025**

FY	(\$ millions)								
	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>(1)</sup>
<b>Refunded Credits</b>									
<b>North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	55	*	173	223	399	267	*	*	203
Credits under AS 43.55.025 <sup>(4)</sup>	0	*	14	23	12	53	*	*	21
<b>Total North Slope</b>	<b>55</b>	<b>53</b>	<b>187</b>	<b>246</b>	<b>411</b>	<b>320</b>	<b>261</b>	<b>281</b>	<b>224</b>
<b>Non-North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	0	*	*	*	*	29	*	*	384
Credits under AS 43.55.025 <sup>(4)</sup>	0	*	*	*	*	4	*	*	21
Credits under AS 43.20 <sup>(5)</sup>	0	*	*	*	*	0	*	15	0
<b>Total Non-North Slope</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>4</b>	<b>39</b>	<b>33</b>	<b>108</b>	<b>312</b>	<b>404</b>
<b>Total Refunded Credits</b>	<b>55</b>	<b>54</b>	<b>193</b>	<b>250</b>	<b>450</b>	<b>353</b>	<b>369</b>	<b>592</b>	<b>628</b>
<b>Credits Used Against Tax Liability<sup>(6)(7)</sup></b>									
<b>North Slope</b>									
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	292	219	279	339	313	306	486	332	0
Transitional investment credit: AS 43.55.023(i) <sup>(8)</sup>	171	73	0	0	0	*	*	0	0
Per taxable barrel credit, AS 43.55.024(i)-(j) <sup>(9)</sup>	0	0	0	0	0	0	0	516	595
Small producer credit, AS 43.55.024(a)(c)	*	*	*	*	*	*	*	*	*
Credits under AS 43.55.025 <sup>(4)</sup>	*	*	*	*	*	*	*	*	*
<b>Total North Slope</b>	<b>541</b>	<b>368</b>	<b>328</b>	<b>402</b>	<b>345</b>	<b>347</b>	<b>536</b>	<b>907</b>	<b>655</b>
<b>Non-North Slope</b>									
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)(c)	*	*	6	*	6	*	*	*	*
<b>Total Non-North Slope</b>	<b>16</b>	<b>10</b>	<b>6</b>	<b>10</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>12</b>	<b>9</b>
<b>Total Credits Used Against Tax Liability</b>	<b>557<sup>(10)</sup></b>	<b>378</b>	<b>334</b>	<b>412</b>	<b>361</b>	<b>363</b>	<b>550</b>	<b>919</b>	<b>664</b>
Total Credits North Slope	596	421	*	647	756	667	797	1,188	879
Total Credits Non-North Slope	16	11	*	14	56	49	122	323	413
<b>Total Statewide Production Tax Credits</b>	<b>612</b>	<b>432</b>	<b>526</b>	<b>662</b>	<b>811</b>	<b>716</b>	<b>918</b>	<b>1,511</b>	<b>1,292</b>
<b>Carried-Forward Credits Balance for Companies Not Eligible for Refund<sup>(11)</sup></b>									
	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

\* An asterisk indicates that the data is confidential.

<sup>(1)</sup> These numbers are preliminary pending analysis of Annual Returns.

<sup>(2)</sup> Forecasted refunded credits are rounded to nearest \$5 million and forecasted credits against liability are also rounded to the nearest \$5 million.

<sup>(3)</sup> Forecasted refunded credits in the near-term are based on known projects and company activities. For FY 2020 and beyond, the forecast of credits available for refund is held constant at \$250 million per year.

<sup>(4)</sup> Credits under AS 43.55.025 include the Alternative Credit for Exploration, the Frontier Basin Credit, and for Cook Inlet only the Cook Inlet Jack-up Rig Credit.

<sup>(5)</sup> Credits under AS 43.20 include the Gas Exploration and Development Credit, Gas Storage Facility Credit, the In-State Gas Refinery Credit, and the LNG Storage Facility Credit.

<sup>(6)</sup> 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 2007-FY 2025 (continued)**

FY	(\$ millions)									
	2016	2017	2018	2019	Forecast <sup>(2)</sup>		2022	2023	2024	2025
<b>Refunded Credits<sup>(3)</sup></b>										
<b>North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	*	370	283	251	180	111	118	163	144	141
Credits under AS 43.55.025 <sup>(4)</sup>	*	76	35	0	0	0	0	0	0	0
<b>Total North Slope</b>	<b>214</b>	<b>447</b>	<b>318</b>	<b>251</b>	<b>180</b>	<b>111</b>	<b>118</b>	<b>163</b>	<b>144</b>	<b>141</b>
<b>Non-North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	*	260	136	96	64	114	117	82	104	109
Credits under AS 43.55.025 <sup>(4)</sup>	*	41	24	5	5	5	5	5	3	0
Credits under AS 43.20 <sup>(5)</sup>	0	25	20	20	20	20	10	0	0	0
<b>Total Non-North Slope</b>	<b>286</b>	<b>325</b>	<b>181</b>	<b>121</b>	<b>89</b>	<b>139</b>	<b>132</b>	<b>87</b>	<b>106</b>	<b>109</b>
<b>Total Refunded Credits</b>	<b>500</b>	<b>775</b>	<b>500</b>	<b>375</b>	<b>270</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>
<b>Credits Used Against Tax Liability<sup>(6)(7)</sup></b>										
<b>North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	12	82	152	166	175	187	129	77	59	0
Transitional investment credit, AS 43.55.023(i) <sup>(8)</sup>	0	0	0	0	0	0	0	0	0	0
Per taxable barrel credit, AS 43.55.024(i)-(j) <sup>(9)</sup>	29	16	24	55	97	105	90	76	64	52
Small producer credit, AS 43.55.024(a)(c)	23	27	14	14	19	17	13	5	4	3
Credits under AS 43.55.025 <sup>(4)</sup>	0	0	0	0	0	0	0	0	0	0
<b>Total North Slope</b>	<b>63</b>	<b>125</b>	<b>190</b>	<b>235</b>	<b>291</b>	<b>309</b>	<b>232</b>	<b>158</b>	<b>126</b>	<b>55</b>
<b>Non-North Slope</b>										
Qualified capital expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well lease expenditure, AS 43.55.023(l)	7	11	11	11	11	11	34	34	34	33
Small producer credit, AS 43.55.024(a)(c)	0	0	3	5	5	5	12	12	12	6
<b>Total Non-North Slope</b>	<b>7</b>	<b>11</b>	<b>14</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>46</b>	<b>46</b>	<b>46</b>	<b>39</b>
<b>Total Credits Used Against Tax Liability</b>	<b>70</b>	<b>135</b>	<b>205</b>	<b>250</b>	<b>305</b>	<b>325</b>	<b>275</b>	<b>205</b>	<b>170</b>	<b>95</b>
Total Credits North Slope	277	521	507	487	471	420	350	322	270	195
Total Credits Non-North Slope	293	387	195	137	105	155	177	132	152	148
<b>Total Statewide Production Tax Credits</b>	<b>570</b>	<b>910</b>	<b>705</b>	<b>625</b>	<b>575</b>	<b>575</b>	<b>525</b>	<b>455</b>	<b>420</b>	<b>345</b>
<b>Carried-Forward Credits Balance for Companies Not Eligible for Refund</b>	<b>357</b>	<b>618</b>	<b>751</b>	<b>732</b>	<b>585</b>	<b>265</b>	<b>136</b>	<b>59</b>	<b>0</b>	<b>0</b>

<sup>(7)</sup> 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 taxpayer primarily operated. Since multiple taxpayers had operations multiple areas, these numbers should be treated as rough estimates.

<sup>(8)</sup> The Transitional Investment Expenditure credit sunset on Dec. 31, 2013.

<sup>(9)</sup> For FY 2014, the Per Taxable Barrel Credit is 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.

<sup>(10)</sup> Three months of 2006 credits data are included in the FY 2007 credits used against tax liability number.

<sup>(11)</sup> This row includes estimates of carried-forward credits for previous calendar years for companies with over 50,000 BOE of production, plus an estimate of credits that will be earned on activity through June 30 of the fiscal year. Carried-forward credits are primarily for net operating losses under AS 43.55.023(b).

**Table A-3b: Petroleum Revenue Forecast**

(\$ millions)

<b>FY</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Unrestricted Petroleum Revenue</b>										
Petroleum Property Tax	133.9	118.3	118.5	117.3	116.5	114.9	113.2	111.4	109.4	107.4
Petroleum Corporate Income Tax	0.0	30.0	105.0	135.0	165.0	195.0	190.0	185.0	180.0	175.0
Oil and Gas Production Tax	144.8	59.4	15.7	10.7	12.5	32.5	109.9	217.3	212.0	275.2
Oil and Gas Hazardous Release	8.6	8.4	8.2	8.1	7.7	7.0	6.5	6.0	5.5	5.0
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 <sup>(1)</sup>	501.0	475.6	527.3	588.7	624.4	645.1	609.5	573.4	536.9	500.9
Bonuses, Rents & Interest-Net <sup>(1)(2)</sup>	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Unrestricted Petroleum Revenue</b>	<b>801.1</b>	<b>704.7</b>	<b>787.5</b>	<b>872.7</b>	<b>938.9</b>	<b>1,007.5</b>	<b>1,042.0</b>	<b>1,105.9</b>	<b>1,056.7</b>	<b>1,076.4</b>
Cumulative Unrestricted Petroleum Revenue <sup>(3)</sup>	115,851	116,556	117,343	118,216	119,155	120,162	121,204	122,310	123,367	124,443
<b>Restricted Petroleum Revenue</b>										
NPR-A Rents, Royalties, Bonuses	4.3	4.3	4.3	6.5	8.6	7.3	6.2	5.5	5.1	4.9
Royalties to AK Permanent Fund	224.4	214.4	238.8	274.7	291.8	294.4	273.9	255.1	237.6	220.9
Royalties to Public School Fund	3.7	3.6	3.9	4.4	4.7	4.8	4.5	4.2	4.0	3.7
CBRF Deposits	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Restricted Petroleum Revenue</b>	<b>332.4</b>	<b>322.3</b>	<b>347.0</b>	<b>385.6</b>	<b>405.1</b>	<b>406.5</b>	<b>384.6</b>	<b>364.9</b>	<b>346.7</b>	<b>329.5</b>
<b>Total Petroleum Revenue</b>	<b>1,133.5</b>	<b>1,026.9</b>	<b>1,134.5</b>	<b>1,258.3</b>	<b>1,344.0</b>	<b>1,414.0</b>	<b>1,426.5</b>	<b>1,470.7</b>	<b>1,403.4</b>	<b>1,405.9</b>

<sup>(1)</sup> Net of Permanent Fund Contribution and CBRF deposits.<sup>(2)</sup> Primarily composed of petroleum revenue.<sup>(3)</sup> Based on revenue beginning in FY 1959.

**Table B-2: Price Differences from Fall 2015 Forecast**

FY	(\$ per barrel of oil)									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Spring 2016 Forecast</b>										
ANS West Coast	39.99	38.89	43.79	48.89	54.48	60.29	61.64	63.03	64.45	65.90
ANS Wellhead Wtd Average All Destinations	29.49	28.03	32.44	37.03	41.86	46.70	47.14	47.54	47.87	48.12
<b>Fall 2015 Forecast</b>										
ANS West Coast	49.58	56.24	62.73	68.95	71.05	77.68	80.00	81.80	84.53	87.35
ANS Wellhead Wtd Average All Destinations	39.02	45.08	51.22	56.99	58.49	64.19	65.54	66.27	67.77	69.24
<b>Price change from prior forecast</b>										
ANS West Coast	(9.59)	(17.35)	(18.95)	(20.06)	(16.58)	(17.39)	(18.36)	(18.77)	(20.08)	(21.45)
ANS Wellhead Wtd Average All Destinations	(9.53)	(17.05)	(18.79)	(19.96)	(16.63)	(17.49)	(18.40)	(18.72)	(19.90)	(21.12)
<b>Percent change from prior forecast</b>										
ANS West Coast	-19.4%	-30.8%	-30.2%	-29.1%	-23.3%	-22.4%	-23.0%	-22.9%	-23.8%	-24.6%
ANS Wellhead Wtd Average All Destinations	-24.4%	-37.8%	-36.7%	-35.0%	-28.4%	-27.2%	-28.1%	-28.3%	-29.4%	-30.5%

**Table C-1: Production Differences from Fall 2015 Forecast**

	(thousands of barrels per day)									
<b>FY</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Spring 2016 Forecast</b>										
Alaska North Slope	520.2	507.1	488.8	484.4	454.1	418.6	387.1	356.8	327.0	300.5
Non-North Slope	17.3	16.1	14.7	13.5	12.5	11.7	10.9	10.2	9.6	9.0
<b>Total</b>	<b>537.5</b>	<b>523.2</b>	<b>503.5</b>	<b>498.0</b>	<b>466.7</b>	<b>430.2</b>	<b>397.9</b>	<b>366.9</b>	<b>336.5</b>	<b>309.5</b>
<b>Fall 2015 Forecast</b>										
Alaska North Slope	500.2	504.9	497.7	487.6	460.5	423.9	391.1	359.8	329.2	302.1
Non-North Slope	17.8	16.1	14.7	13.5	12.5	11.7	10.9	10.2	9.6	9.0
<b>Total</b>	<b>518.0</b>	<b>521.0</b>	<b>512.4</b>	<b>501.1</b>	<b>473.0</b>	<b>435.6</b>	<b>402.0</b>	<b>370.0</b>	<b>338.8</b>	<b>311.1</b>
<b>Volume change from prior forecast</b>										
Alaska North Slope	20.0	2.2	(8.9)	(3.2)	(6.4)	(5.3)	(4.0)	(3.0)	(2.2)	(1.6)
Non-North Slope	(0.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>19.5</b>	<b>2.2</b>	<b>(8.9)</b>	<b>(3.2)</b>	<b>(6.4)</b>	<b>(5.3)</b>	<b>(4.0)</b>	<b>(3.0)</b>	<b>(2.2)</b>	<b>(1.6)</b>
<b>Percent change from prior forecast</b>										
Alaska North Slope	4.00%	0.44%	-1.79%	-0.65%	-1.38%	-1.26%	-1.03%	-0.84%	-0.67%	-0.52%
Non-North Slope	-2.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Total</b>	<b>3.76%</b>	<b>0.42%</b>	<b>-1.74%</b>	<b>-0.64%</b>	<b>-1.35%</b>	<b>-1.22%</b>	<b>-1.01%</b>	<b>-0.82%</b>	<b>-0.65%</b>	<b>-0.51%</b>