



Spring 2020 Revenue Forecast

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THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Revenue

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April 6, 2020

The Honorable Mike Dunleavy
Governor
State of Alaska
P.O. Box 110001
Juneau, Alaska 99811-0001

Dear Governor Dunleavy,

I am presenting to you the Department of Revenue's Spring 2020 revenue forecast. The Spring 2020 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 and several other state agencies.

This spring revenue forecast comes during a period of extreme uncertainty. Alaska, along with the rest of the world, is responding to the COVID-19 pandemic. While the human impacts of this pandemic are of highest importance, the purpose of this forecast is to attempt to estimate the state revenue impacts. The forecast is made difficult by the ongoing and unknown nature of the pandemic, compounded by highly volatile investment markets and oversupplied oil markets.

Unrestricted General Fund (UGF) revenue, before accounting for the transfer from the Permanent Fund Earnings Reserve, is now forecast to be \$1.6 billion in fiscal year (FY) 2020 and \$1.2 billion in FY 2021. For FY 2020, UGF revenue is expected to consist of approximately \$1.1 billion from petroleum and \$0.5 billion from non-petroleum sources. For FY 2021, UGF revenue is expected to consist of approximately \$0.7 billion from petroleum and \$0.4 billion from non-petroleum sources.

The Permanent Fund is expected to transfer \$2.9 billion to the general fund in FY 2020 and \$3.1 billion in FY 2021. These amounts include funds for both payment of dividends and general government spending.

This spring forecast reflects a significant reduction in expected UGF revenue compared to the fall 2019 forecast. For FY 2020, projected UGF revenue has been reduced by \$527 million, with a \$461 million reduction to expected petroleum revenue and a \$67 million reduction to expected non-petroleum revenue. For FY 2021, projected UGF revenue has been reduced by \$815 million, with a \$693 million reduction to expected petroleum revenue and a \$121 million reduction to expected non-petroleum revenue. Petroleum revenue reductions are largely a function of a lower oil price forecast, while non-petroleum revenue reductions are due in part to impacts of COVID-19 and economic impacts primarily from the pandemic. Revenue projections for the remainder of the

forecast years have also been lowered, with reductions ranging between \$647 million and \$845 million per fiscal year.

The revenue forecast is based on Alaska North Slope (ANS) oil prices remaining below \$30.00 per barrel for the remainder of FY 2020, resulting in an annual average price of \$51.65 per barrel. The ANS price forecast is \$37.00 for FY 2021, climbing to \$53.00 by FY 2029. The oil price forecast is based on futures market prices and reflects the current extreme supply and demand imbalance gradually relaxing over the next several years.

The revenue forecast is also driven by an expectation for North Slope oil production to average 486,400 barrels per day in FY 2020, remaining stable at 486,500 barrels per day in FY 2021, and slightly climbing to 491,000 by FY 2029. The spring forecast for oil production was developed prior to the March 2020 oil price crash. Given the long lead time for Alaska oil projects and high level of uncertainty, the production forecast has not been further revised at this time.

With the tremendous uncertainty and unprecedented nature of the COVID-19 crisis, it is impossible to make predictions on the stock market, oil prices, future tourist activity, or revenue with certainty. In order to honor this uncertainty, the department has developed a plausible scenario upon which to base the spring revenue forecast. This scenario provides a reasonable baseline for planning purposes and highlights some of the important variables that can be monitored as events unfold over coming months.

I hope you find the information provided in the Spring 2020 forecast to be useful. The department will continue to monitor economic and revenue trends over the coming months, and we look forward to providing you with the next full forecast in the fall of 2020.

Sincerely,

A handwritten signature in black ink that reads "Lucinda Mahoney". The signature is written in a cursive, flowing style.

Lucinda Mahoney
Commissioner

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Executive Summary

General Discussion

The spring forecast is an annual update of the revenue forecast published in the preceding fall, for use by the Governor, the Alaska Legislature, and the Alaska public. This update is a collaborative effort by the Department of Revenue, the Department of Natural Resources (DNR), 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, before the transfer from the Permanent Fund Earnings Reserve, is estimated to be \$1.6 billion for FY 2020 and \$1.2 billion for FY 2021. For FY 2020, UGF revenue is expected to consist of \$1.1 billion from petroleum and \$0.5 billion from non-petroleum sources. For FY 2021, UGF revenue is expected to consist of \$0.7 billion from petroleum and \$0.4 billion from non-petroleum sources.

The transfer from the Permanent Fund Earnings Reserve, as authorized by the

enactment of Senate Bill 26 in 2018, comprises the majority of UGF revenue and will be \$2.9 billion in FY 2020 and \$3.1 billion in FY 2021. The amounts transferred in each fiscal year are for both payment of Permanent Fund Dividends and for general government spending.

This spring forecast reflects a significant reduction in expected UGF revenue compared to the fall 2019 forecast. For FY 2020, projected UGF revenue has been reduced by \$527 million, with a \$461 million reduction to expected petroleum revenue and a \$67 million reduction to expected non-petroleum revenue. For FY 2021, projected UGF revenue has been reduced by \$815 million, with a \$693 million reduction to expected petroleum revenue and a \$121 million reduction to expected non-petroleum revenue. Petroleum revenue reductions are largely a function of a lower oil price forecast, while non-petroleum revenue reductions are due in part to impacts of COVID-19 and economic impacts primarily from the pandemic. Revenue projections for the remainder of the forecast years have also been lowered, with reductions ranging between \$647 million and \$845 million per fiscal year.

In FY 2019, total state revenue from all sources amounted to an estimated \$11.2 billion. Total state revenue for FY 2020 is expected to decrease to \$6.6 billion,

as increased federal aid partially, but not completely, offsets poor returns for the Alaska Permanent Fund and low petroleum revenues. In FY 2021, total state revenue is forecast to be \$10.6 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, earnings of the CBRF, various royalty and tax deposits to the CBRF, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund. Current-year revenue subject to appropriation is estimated at \$5.2 billion in FY 2020 and \$4.8 billion in FY 2021.

Overview of the Current Situation

This spring revenue forecast comes during a period of extreme uncertainty. Alaska, along with the rest of the world, is responding to the COVID-19 pandemic. While the human impacts of this

pandemic are of highest importance, the purpose of this forecast is to attempt to estimate the state revenue impacts. The forecast is made difficult by the ongoing and unknown nature of the pandemic, compounded by highly volatile investment markets and oversupplied oil markets.

Beginning with some known facts, the pandemic has led to a sharp reduction in economic activity and numerous, hopefully temporary, business closures. The 2020 tourism season has been delayed and the economy appears to be in, or headed towards, a major recession.

Another fact is that the decade-long bull market in stocks may have come to an end, causing declines in individual Alaskan's wealth, as well as a decline in value for the Alaska Permanent Fund so far this fiscal year.

Finally, oil prices have crashed to near \$20 per barrel based on supply and demand fundamentals. On the supply side, the Organization of Petroleum Exporting Countries (OPEC) has broken down and Saudi Arabia and Russia are engaged in a price war, pledging to maintain or increase production regardless of price. While it would be easy to point to OPEC as the reason for low oil prices, there has also been an unprecedented decline in oil consumption due to the pandemic. Simply put, there is currently too much oil in the world presently and from an economics perspective, the current low prices are needed to remove supply from the market or stimulate demand.

Key Assumptions

Given the tremendous uncertainty and unprecedented nature of the COVID-19 crisis, it is impossible to make predictions on the stock market, oil prices, future tourist activity, or revenue with certainty. In order to honor this uncertainty, the department has developed a plausible

scenario upon which to base the spring revenue forecast. This scenario provides a reasonable baseline for planning purposes and highlights some of the important variables that can be monitored as events unfold over coming months. Following are the key assumptions used in developing the spring revenue forecast, specifically related to COVID-19 and related uncertainty.

Overall Economy: The spring forecast assumes that widespread virus-related shutdowns continue for the second half of FY 2020. The forecast assumes that shutdowns are reversed during the first half of FY2021 (July – December 2020), and that overall economic activity is back to baseline levels by FY 2022 (July 2021+). Some revenue forecasts have been adjusted to reflect these assumptions, others have not and will continue to be monitored and evaluated ahead of the fall forecast.

Oil Price: The spring forecast is based on an average Alaska North Slope (ANS) oil price of under \$30.00 for the remainder of FY 2020, bringing the FY 2020 average price to \$51.65. The ANS price forecast is \$37.00 for FY 2021, climbing to \$53.00 by FY 2029. The oil price forecast is based on futures market prices and reflects the current extreme supply and demand imbalance gradually relaxing over the next several years.

Oil Production: The spring forecast for oil production was developed prior to the March 2020 price crash. Given the long lead time for Alaska oil projects and high level of uncertainty, the production forecast has not been further revised at this time, so the forecast is still based on fairly stable Alaska production.

Investment Returns: The spring forecast is based on the "low projection" from the Alaska Permanent Fund Corporation (APFC) for FY 2020 and then the median projection for FY 2021 on. For FY 2020 this represents an overall return to the fund of about -0.5% for the year. Reaching this result requires some

recovery in investment markets over the remainder of the fiscal year. For FY 2021 on, the forecast assumes 7% annual overall returns to the fund.

Corporate Taxes: The spring forecast for petroleum corporate tax revenue assumes minimal net revenue for the rest of FY 2020 and FY 2021, based on low oil prices. Beyond FY 2021, payments resume as prices recover. Non-petroleum corporate tax revenue is expected to fall significantly for certain sectors, based on reduced economic activity.

Tourism: The spring forecast assumes that the 2020 summer tourism season (FY 2020-2021) is largely lost with no cruise ship visits and minimal independent tourists. The 2021 summer season (FY 2021-2022) is expected to proceed, including resumption of cruise ship visits, but only at 75% of previously expected levels. For summer 2022 on, tourism is assumed to be back to previously expected levels. These assumptions reflect no inside knowledge and are intended simply to provide one possible baseline for budget planning purposes.

Mining: The spring forecast for mining revenues was reduced to reflect lower expected prices for industrial metals such as zinc and lead. Sustained high gold prices somewhat offset this negative impact. No adjustments to production expectations were made for the spring forecast.

Fisheries: The spring forecast for fisheries revenues was reduced to reflect the high level of uncertainty regarding demand for fish, and thus fish prices, as well as uncertainty surrounding worker supply.

Motor Fuel Taxes: The spring forecast for motor fuel taxes assumes a 25% reduction in fuel use for the remainder of FY 2020, and a 5% reduction compared to baseline for FY2021. For FY 2022 on, motor fuel use is forecast to return to previously expected levels.

Federal Revenue: The spring forecast for federal revenue is based on authorized

federal receipts as of passage of the state budget in late March 2020. Additional federal revenue, including from the Coronavirus Aid, Relief, and Economic Security (CARES) Act, are not included in the spring forecast, and could provide additional revenue.

Forecast Method Notes

The spring forecast is based on laws in place as of mid-March, 2020. Importantly, the forecast does not incorporate impacts of the CARES Act that was enacted in late-March. This Act may provide additional federal revenue to the state above and beyond what is reflected in this forecast. Another provision of the CARES Act allows companies to carry back certain losses for corporate income tax purposes and claim refunds for prior-year taxes. Since Alaska incorporates federal corporate tax provisions, this provision will likely reduce state revenue below what is reflected in this forecast. The department will incorporate the CARES Act and other recent developments into future revenue forecast updates.

The FY 2019 historic numbers in this document have been updated from the *Fall 2019 Revenue Sources Book* to reflect the latest available information about actual expenditures and collections.

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.

Additionally, throughout this publication, values and sums may show slight differences due to rounding.

Total State Revenue

By restriction and type

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2019	2020	2021
Unrestricted Revenue Sources			
Unrestricted General Fund Revenue			
Petroleum Revenue	2,043.8	1,098.8	716.6
Non-Petroleum Revenue	490.1	454.2	411.5
Investment Revenue	2,815.9	2,969.4	3,116.3
Total Unrestricted General Fund Revenue	5,349.8	4,522.3	4,244.3
Restricted Revenue Sources			
Designated General Fund Revenue			
Non-Petroleum Revenue	450.3	416.4	413.4
Investment Revenue	53.3	-42.4	38.2
Subtotal Designated General Fund Revenue	503.6	374.0	451.6
Other Restricted Revenue			
Petroleum Revenue	563.5	549.8	285.2
Non-Petroleum Revenue	180.9	216.9	200.9
Investment Revenue	1,134.7	-3,406.0	1,073.8
Subtotal Other Restricted Revenue	1,879.2	-2,639.3	1,559.9
Federal Revenue ¹			
Federal Receipts	3,434.5	4,304.8	4,304.8
Petroleum Revenue ²	12.3	13.0	9.1
Subtotal Federal Revenue	3,446.8	4,317.8	4,314.0
Total Restricted Revenue	5,829.6	2,052.5	6,325.5
Total State Revenue	11,179.4	6,574.8	10,569.9

¹ The federal revenue forecast does not include potential additional state revenue due to the CARES Act passed by Congress in late March, 2020.

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

Unrestricted General Fund Revenue

By source and type

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2019	2020	2021
Unrestricted Petroleum Revenue			
Petroleum Taxes			
Petroleum Property Tax	119.5	123.2	116.7
Petroleum Corporate Income Tax ¹	217.7	35.0	35.0
Oil and Gas Production Tax	595.5	267.6	122.3
Subtotal Petroleum Taxes	932.6	425.8	274.0
Royalties (including Bonuses, Rents, and Interest)			
Mineral Bonuses and Rents	33.0	25.8	29.4
Oil and Gas Royalties	1,074.5	646.2	410.9
Interest	3.6	1.0	2.3
Subtotal Royalties	1,111.1	673.0	442.6
Total Unrestricted Petroleum Revenue	2,043.8	1,098.8	716.6
Unrestricted Non-Petroleum Revenue			
Non-Petroleum Taxes			
Excise Tax			
Alcoholic Beverage	20.4	20.3	20.6
Tobacco Products – Cigarette	26.5	23.2	22.8
Tobacco Products – Other	13.5	14.5	15.6
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium Tax ²	71.9	56.8	58.5
Marijuana	5.5	5.9	6.8
Motor Fuel (Refined Fuel Surcharge)	6.3	5.9	6.0
Tire Fee	1.3	1.3	1.3
Subtotal Excise Tax	145.7	128.0	131.7
Corporate Income Tax ¹	114.8	100.0	75.0
Fisheries Tax			
Fisheries Business	21.3	21.2	16.2
Fishery Resource Landing	6.5	5.4	4.1
Subtotal Fisheries Tax	27.8	26.5	20.3
Other Tax			
Charitable Gaming	2.6	2.3	2.3
Large Passenger Vessel Gambling	10.1	6.8	2.3
Mining	45.1	45.8	23.3
Subtotal Other Tax	57.7	54.9	27.9
Subtotal Unrestricted Non-Petroleum Taxes	346.0	309.4	254.9

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Unrestricted General Fund Revenue

By source and type *(Continued)*

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2019	2020	2021
Unrestricted Non-Petroleum Revenue			
Charges for Services	6.9	6.9	6.9
Fines and Forfeitures	15.8	12.1	12.1
Licenses and Permits			
Motor Vehicle	37.2	38.1	38.1
Other	0.8	2.3	2.3
Subtotal Licenses and Permits	38.0	40.4	40.4
Rents and Royalties			
Mining Rents and Royalties	1.9	1.5	1.5
Other Non-Petroleum Rents and Royalties	3.7	3.7	3.7
Subtotal Rents and Royalties	5.6	5.2	5.2
Miscellaneous Revenues and Transfers			
Miscellaneous	43.3	26.9	26.9
Alaska Housing Finance Corporation Dividend	17.4	27.0	33.6
Alaska Industrial Development and Export Authority Dividend	4.8	10.3	14.5
Alaska Municipal Bond Bank Authority Dividend	0.9	0.9	0.9
Alaska Student Loan Corporation Dividend	0.0	0.0	0.0
Alaska Energy Authority Dividend	0.0	0.0	0.0
Alaska Natural Gas Development Authority Dividend	0.0	0.0	0.0
Mental Health Trust Dividend	0.0	0.0	0.0
Unclaimed Property	11.5	15.0	16.0
Subtotal Miscellaneous Revenues and Transfers	77.9	80.1	91.9
Total Unrestricted Non-Petroleum Revenue	490.1	454.2	411.5
Unrestricted Investment Revenue			
Investment Revenue			
Alaska Permanent Fund	2,722.6	2,933.1	3,091.5
Investments	93.3	36.3	24.8
Total Unrestricted Investment Revenue	2,815.9	2,969.4	3,116.3
Total Unrestricted General Fund Revenue	5,349.8	4,522.3	4,244.3

¹ The corporate income tax revenue forecast does not include potential reductions to state revenue due to loss carry-back provisions of the CARES Act passed by Congress in late March, 2020.

² Insurance Premium Tax was considered designated restricted revenue for FY 2016 to FY 2018 and reverted to unrestricted revenue beginning in FY 2019.

Restricted Revenue

By source and type

Fiscal Year	Millions of Dollars		
	History 2019	Forecast 2020 2021	
Designated General Fund Restricted Revenue			
Non-Petroleum Revenue			
Taxes	141.9	140.3	131.7
Charges for Services	243.3	206.5	210.3
Fines and Forfeitures	4.6	5.1	5.0
Licenses and Permits	2.4	2.4	2.4
Rents and Royalties	20.8	19.3	19.3
Other	37.4	42.9	44.8
Subtotal Non-Petroleum Revenue	450.3	416.4	413.4
Investment Revenue			
Investments – Designated General Fund	5.3	2.8	1.1
Other Treasury – Managed Funds	48.0	-45.2	37.1
Subtotal Investment Revenue	53.3	-42.4	38.2
Total Restricted Designated General Fund Revenue	503.6	374.0	451.6
Other Restricted Revenue			
Petroleum Revenue			
Royalties to Alaska Permanent Fund and Public School Trust Fund (includes bonuses, rents, and interest)	382.3	314.8	210.2
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	181.2	235.0	75.0
Subtotal Petroleum Revenue	563.5	549.8	285.2
Non-Petroleum Revenue			
Taxes	51.6	41.8	26.4
Charges for Services	47.3	86.8	86.6
Fines and Forfeitures	16.1	18.3	17.8
Licenses and Permits	41.1	41.0	41.2
Rents and Royalties	6.7	10.9	10.9
Other	18.1	18.1	18.1
Subtotal Non-Petroleum Revenue	180.9	216.9	200.9
Investment Revenue			
Investments – Other Restricted	16.9	8.9	3.7
Constitutional Budget Reserve Fund	74.8	33.1	9.5
Alaska Permanent Fund Restricted Earnings, net of General Fund Draw ¹	1,043.0	-3,447.9	1,060.7
Subtotal Investment Revenue	1,134.7	-3,406.0	1,073.8
Total Other Restricted Revenue	1,879.2	-2,639.3	1,559.9

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Restricted Revenue

By source and type *(Continued)*

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2019	2020	2021
Restricted Federal Revenue²			
Federal Receipts	3,434.5	4,304.8	4,304.8
Petroleum Revenue			
NPR-A Royalties (includes bonuses, rents, and interest) ³	12.3	13.0	9.1
Total Restricted Federal Revenue	3,446.8	4,317.8	4,314.0
Total Restricted Revenue	5,829.6	2,052.5	6,325.5

¹While payouts are limited to realized revenue, both unrealized and realized revenues are shown per Generally Accepted Accounting Principles. Restricted earnings starting in FY 2019 consist of unrealized gains plus realized gains, less the transfer to the general fund.

²The federal revenue forecast does not include potential additional state revenue due to the CARES Act passed by Congress in late March, 2020.

³Petroleum Revenue shown in the Restricted Federal Revenue category includes the state share of rents, royalties, and bonuses received from the National Petroleum Reserve – Alaska.

Total Unrestricted General Fund Revenue

FY 2019 actuals and FY 2020 – FY 2029 forecast

Millions of Dollars

Fiscal Year	History		Forecast								
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Unrestricted General Fund Revenue											
Petroleum	2,043.8	1,098.8	716.6	805.4	897.0	941.5	971.7	980.5	997.0	1,096.3	1,180.2
Non-Petroleum	490.1	454.2	411.5	442.6	456.3	469.9	472.7	482.3	491.1	496.3	505.7
Investment	2,815.9	2,969.4	3,116.3	3,082.2	3,206.9	3,275.6	3,306.3	3,338.1	3,415.9	3,496.6	3,580.4
Total Unrestricted General Fund Revenue	5,349.8	4,522.3	4,244.3	4,330.2	4,560.2	4,686.9	4,750.8	4,800.9	4,904.0	5,089.3	5,266.4
Percent from Petroleum	38%	24%	17%	19%	20%	20%	20%	20%	20%	22%	22%
Total Unrestricted Revenue (not including Permanent Fund transfer)											
	2,627.2	1,589.2	1,152.8	1,282.2	1,396.2	1,462.9	1,504.8	1,531.9	1,566.0	1,679.3	1,781.4
Percent from Petroleum	78%	69%	62%	63%	64%	64%	65%	64%	64%	65%	66%
Selected Petroleum Data											
Price Per Barrel of ANS Crude (Dollars)	69.46	51.65	37.00	41.00	44.00	46.00	48.00	49.00	50.00	51.00	53.00
Average Daily ANS Production ¹ (Thousand Barrels Per Day)	496.9	486.4	486.5	458.0	438.2	433.2	448.9	457.0	466.2	479.0	491.0

¹ Spring 2020 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

Current-Year Revenue Subject to Appropriation

FY 2019 actuals and FY 2020 – FY 2029 forecast

Millions of Dollars

Fiscal Year	History	Forecast										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Petroleum Revenue												
Unrestricted												
General Fund	2,043.8	1,098.8	716.6	805.4	897.0	941.5	971.7	980.5	997.0	1,096.3	1,180.2	
Royalties to Alaska												
Permanent Fund												
Beyond 25%												
Dedication ¹	0.0	62.9	43.7	45.4	45.7	49.0	56.3	70.1	85.4	100.3	115.6	
Tax and Royalty												
Settlements to												
CBRF	181.2	235.0	75.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	
Subtotal Petroleum Revenue	2,225.0	1,396.7	835.3	900.8	992.7	1,040.5	1,078.0	1,100.6	1,132.4	1,246.6	1,345.8	
Non-Petroleum Revenue												
Unrestricted												
General Fund	490.1	454.2	411.5	442.6	456.3	469.9	472.7	482.3	491.1	496.3	505.7	
Designated												
General Fund	450.3	416.4	413.4	432.8	434.9	437.1	439.0	441.0	442.9	444.8	446.7	
Royalties to Alaska												
Permanent Fund												
Beyond 25%												
Dedication ¹	0.0	3.2	3.8	3.8	3.8	3.8	3.9	4.0	4.1	4.2	4.3	
Tax and Royalty												
Settlements to												
CBRF	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Subtotal Non-Petroleum Revenue	943.3	873.8	828.6	879.2	895.0	910.7	915.6	927.3	938.0	945.3	956.7	
Investment Revenue												
Unrestricted												
General Fund	2,815.9	2,969.4	3,116.3	3,082.2	3,206.9	3,275.6	3,306.3	3,338.1	3,415.9	3,496.6	3,580.4	
Designated												
General Fund	53.3	-42.4	38.2	38.9	39.6	40.3	41.0	41.7	42.4	43.0	43.7	
CBRF	74.8	33.1	9.5	5.4	7.5	9.6	11.6	13.7	15.8	17.9	20.0	
Subtotal Investment Revenue	2,944.0	2,960.0	3,164.0	3,126.6	3,254.0	3,325.5	3,359.0	3,393.5	3,474.0	3,557.6	3,644.2	
Total Revenue Subject to Appropriation	6,112.3	5,230.4	4,827.9	4,906.6	5,141.7	5,276.7	5,352.6	5,421.4	5,544.5	5,749.5	5,946.8	

Note: CBRF is an acronym for Constitutional Budget Reserve Fund.

¹Estimate based on deposit to Permanent Fund minus 25% of total royalties. In FY 2019, only the constitutionally required 25% of royalties were deposited into the Permanent Fund.

ANS Oil and Gas Production Tax

Data summary

Fiscal Year	History	Forecast	
	2019	2020	2021
North Slope Price (dollars per barrel)			
ANS West Coast	69.46	51.65	37.00
Transportation Costs and Other	8.02	8.47	9.68
ANS Wellhead	61.44	43.18	27.32
North Slope Production ¹ (thousand barrels per day)			
Total ANS Production	496.9	486.4	486.5
Royalty and Federal ²	60.9	58.6	56.2
Taxable Barrels	436.0	427.8	430.3
North Slope Lease Expenditures ^{3,4} (millions of dollars)			
Allowable North Slope Lease Expenditures			
Operating Expenditures (OPEX)	2,871.7	2,803.4	2,522.5
Capital Expenditures (CAPEX)	2,158.7	2,761.4	2,357.1
Total Allowable North Slope Expenditures	5,030.5	5,564.9	4,879.7
Deductible North Slope Lease Expenditures			
Operating Expenditures (OPEX)	2,679.3	2,449.8	2,277.0
Capital Expenditures (CAPEX)	2,014.1	1,946.7	1,643.5
Total Deductible North Slope Lease Expenditures	4,693.4	4,396.5	3,920.5
State Production Tax Revenue ⁵			
Tax Revenue (millions of dollars)	595.5	267.6	122.3
Production Tax Collected per Taxable Barrel (dollars per barrel)	3.74	1.71	0.78
Statewide Production Tax Credits ^{3,6} (millions of dollars)			
Credits Used Against Tax Liability	1,030.2	573.0	127.0
Credits for Potential Purchase	99.9	1.1	738.0

¹ Spring 2020 Forecast assumes that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large-scale enhanced oil recovery project. Beginning with FY 2019, these NGLs are excluded from actual and forecast production reported in this table. With new information, future NGL shipment estimates may change, and these changes will be included in subsequent production forecasts.

² 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.

³ Lease expenditures and credits used against tax liability for FY 2019 were prepared using unaudited company-reported estimates.

⁴ Expenditure forecasts for FY 2020 and FY 2021 are compiled from company submitted estimates and other documentation as provided to DOR. Expenditures 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.

⁵ Production tax is calculated on a company-specific basis, therefore the aggregated data reported here will not generate the total tax revenue shown.

⁶ Production tax credits shown include all production tax credits from all areas of the state. Assumptions for the Small-Producer Credit 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.

10-Year Forecast for Production Tax Credits

FY 2020 – FY 2029 forecast

Millions of Dollars

Fiscal Year	Forecast									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Statewide Credits										
Credits Used Against Tax Liability	573	127	147	153	141	174	170	203	222	294
Credits Purchased by the State ¹	1	738	5	0	0	0	0	0	0	0
Total Statewide Production Tax Credits	574	865	152	153	141	174	170	203	222	294
Statutory Appropriation to Oil and Gas Tax Credit Fund²										
	129	36	40	42	44	47	45	48	61	78

¹ Credits Purchased by the State consists primarily of production tax credits purchased, but also includes corporate income tax credits available for state purchase from the Oil and Gas Tax Credit Fund. These include the Gas Storage Facility Credit, LNG Storage Facility Credit, and Refinery Credits. To be consistent with prior forecast conventions, the spring 2020 forecast assumes that all outstanding tax credits are purchased in FY 2021, either by appropriation or through bonding. As of publication of this forecast, the state bonding program to purchase credits is on hold due to litigation.

² Per AS 43.55.028(c), the statutory appropriation is 10% of taxes levied by AS 43.55.011 (oil and gas production tax) when the Alaska North Slope price forecast for the fiscal year is \$60 per barrel or higher, and 15% of taxes levied by AS 43.55.011 when the ANS price forecast for the fiscal year is below \$60 per barrel.

Historical Production Tax Credits and Forecast

Detail, FY 2010 – FY 2029

Millions of Dollars

Fiscal Year	History									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 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)	223	399	267	*	*	203	*	*	*	*
Credits under AS 43.55.025 ²	23	12	53	*	*	21	*	*	*	*
Total North Slope	246	411	320	261	281	224	212	*	51	68
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	26	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	4	39	33	108	312	404	287	30	27	32
Total Credits Purchased by the State⁴	250	450	353	369	592	628	498	30	78	100
Credits Used Against Tax Liability^{5, 6}										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	339	313	306	486	332	0	*	*	*	*
Transitional Investment Credit: AS 43.55.023(i)	0	0	*	*						
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j) ⁷					516	524	86	536	1,001	1,002
Small-Producer Credit, AS 43.55.024(a) and (c)	*	*	*	*	*	*	*	*	*	*
Credits under AS 43.55.025 ²	*	*	*	*	*	*	*	*	*	*
Total North Slope	402	345	347	536	907	575	120	570	1,034	1,026
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)	*	11	*	*	*	*	*	*	*	*
Small-Producer Credit, AS 43.55.024(a) and (c)	*	6	*	*	*	*	*	*	*	*
Total Non-North Slope	10	17	16	14	12	10	5	1	1	4
Total Credits Used Against Tax Liability	412	361	363	550	919	585	125	572	1,036	1,030
Total Credits North Slope	647	756	667	797	1,188	799	332	570	1,086	1,094
Total Credits Non-North Slope	14	56	49	122	323	414	292	32	28	36
Total Statewide Production Tax Credits	662	811	716	919	1,511	1,213	624	602	1,114	1,130
Tax Value of Carried-Forward Annual Losses and Credits⁸	0	0	0	0	0	0	0	0	0	190

* 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 To be consistent with prior forecast conventions, the spring 2020 forecast assumes that all outstanding tax credits are purchased in FY 2021, either by appropriation or through bonding. As of publication of this forecast, the state bonding program to purchase credits is on hold due to litigation.

⁵ 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.

Historical Production Tax Credits and Forecast

Detail, FY 2010 – FY 2029 (Continued)

Millions of Dollars

Forecast

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Credits Purchased by the State										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	0	291	0	0	0	0	0	0	0	0
Credits under AS 43.55.025 ²	0	134	0	0	0	0	0	0	0	0
Total North Slope	0	425	0	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)	*	228	0	0	0	0	0	0	0	0
Credits under AS 43.55.025 ²	*	25	0	0	0	0	0	0	0	0
Credits under AS 43.20 ³	*	60	5	0	0	0	0	0	0	0
Total Non-North Slope	1	313	5	0	0	0	0	0	0	0
Total Credits Purchased by the State⁴	1	738	5	0	0	0	0	0	0	0
Credits Used Against Tax Liability^{5, 6}										
North Slope										
Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	2	32	34	29	0	0	0	0	0	0
Transitional Investment Credit: AS 43.55.023(i)										
Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j) ⁷	544	82	100	120	137	170	168	203	222	294
Small-Producer Credit, AS 43.55.024(a)(c)	13	1	1	1	1	1	0	0	0	0
Credits under AS 43.55.025 ²	0	0	0	0	0	0	0	0	0	0
Total North Slope	560	115	135	150	138	171	168	203	222	294
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)	10	8	8	0	0	0	0	0	0	0
Small-Producer Credit, AS 43.55.024(a)(c)	3	4	4	3	3	3	2	0	0	0
Total Non-North Slope	13	13	12	3	3	3	2	0	0	0
Total Credits Used Against Tax Liability	573	127	147	153	141	174	170	203	222	294
Total Credits North Slope	560	540	135	150	138	171	168	203	222	294
Total Credits Non-North Slope	14	325	17	3	3	3	2	0	0	0
Total Statewide Production Tax Credits	574	865	152	153	141	174	170	203	222	294
Tax Value of Carried-Forward Annual Losses and Credits⁸	560	830	1,348	1,908	2,492	3,010	3,214	3,317	3,412	3,483

⁶ 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.

⁷ 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 fore-

cast are limited by a company's tax liability including the minimum tax.

⁸ Tax value of carried-forward losses is calculated by multiplying the amount of carried-forward annual loss by the statutory 35% tax rate. This row also includes estimates of carried-forward credits for previous calendar years for companies with over 50,000 barrels of oil equivalent (BOE) of production.

Petroleum Revenue

By restriction and type

Millions of Dollars

History¹

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Unrestricted Petroleum Revenue										
Petroleum Property Tax	118.8	110.6	111.2	99.3	128.1	125.2	111.7	120.4	121.6	119.5
Petroleum Corporate Income Tax	446.1	542.1	568.8	434.6	307.6	94.8	-58.8	-59.4	66.4	217.7
Production Tax	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6	176.8	125.9	741.2	587.3
Oil and Gas Hazardous Release	10.3	9.7	9.4	7.8	8.8	8.1	9.2	8.6	8.7	8.2
Oil and Gas Royalties ²	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1	840.3	676.2	977.8	1,074.5
Bonuses, Rents and Interest ²	8.0	22.0	8.9	19.4	27.4	26.1	30.3	5.3	24.5	36.6
Total Unrestricted Petroleum Revenue	4,912.9	7,048.9	8,857.8	6,352.0	4,762.8	1,687.9	1,109.5	876.9	1,940.2	2,043.8
Cumulative Total Unrestricted Petroleum Revenue³										
	86,340	93,389	102,247	108,599	113,362	115,050	116,159	117,036	118,976	121,020
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	21.3	3.0	4.8	3.6	6.8	3.2	1.8	1.4	23.7	12.3
Royalties to Permanent Fund	696.1	857.3	904.9	842.1	773.7	510.4	390.5	334.5	356.1	374.8
Royalties to Public School Trust Fund	11.1	13.6	14.7	13.8	12.5	7.9	6.4	5.5	7.0	7.5
Constitutional Budget Reserve Fund Deposits ⁴	552.7	187.2	102.8	357.4	177.4	149.9	119.1	481.9	121.3	181.2
Total Restricted Petroleum Revenue	1,281.2	1,061.1	1,027.2	1,216.9	970.4	671.4	517.8	823.2	508.0	575.8

(Table continued, next page)

Petroleum Revenue

By restriction and type *(Continued)*

Millions of Dollars

Fiscal Year	Forecast									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Unrestricted Petroleum Revenue										
Petroleum Property Tax	123.2	116.7	115.0	113.7	112.3	110.9	108.9	106.8	104.5	102.1
Petroleum Corporate Income Tax	35.0	35.0	90.0	165.0	170.0	175.0	180.0	185.0	190.0	195.0
Production Tax	259.5	114.2	122.1	128.6	151.4	138.9	126.7	117.8	184.3	227.7
Oil and Gas Hazardous Release	8.1	8.1	7.6	7.3	7.2	7.3	7.4	7.5	7.7	7.8
Oil and Gas Royalties ²	646.2	410.9	439.0	450.8	469.0	507.9	525.8	548.3	578.2	615.9
Bonuses, Rents and Interest ²	26.8	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
Total Unrestricted Petroleum Revenue	1,098.8	716.6	805.4	897.0	941.5	971.7	980.5	997.0	1,096.3	1,180.2
Cumulative Total Unrestricted Petroleum Revenue³										
	122,119	122,836	123,641	124,538	125,480	126,451	127,432	128,429	129,525	130,705
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	13.0	9.1	10.6	16.0	27.3	38.3	42.9	43.4	51.7	64.7
Royalties to Permanent Fund	309.8	206.9	218.6	223.0	233.5	256.3	280.7	308.6	338.6	371.7
Royalties to Public School Trust Fund	5.0	3.3	3.5	3.5	3.7	4.0	4.2	4.5	4.8	5.1
Constitutional Budget Reserve Fund Deposits ⁴	235.0	75.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Total Restricted Petroleum Revenue	562.8	294.3	282.6	292.5	314.4	348.6	377.8	406.5	445.0	491.5

¹ Historical petroleum revenue can be found on the Tax Division's website at www.tax.alaska.gov/sourcesbook/qr.aspx?Chapter=26&FY=2020.

² Net of Permanent Fund, Public School Trust Fund, and Constitutional Budget Reserve Fund deposits.

³ Based on revenue beginning in FY 1959.

⁴ The FY 2011 and FY 2012 Constitutional Budget Reserve Fund Deposits have been revised to include deposits from royalty settlements.

Price Difference from Prior Forecast

Fall 2019 forecast and Spring 2020 forecast

Fiscal Year	Dollars per Barrel									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Fall 2019 Forecast										
ANS West Coast	63.54	59.00	61.00	62.00	63.00	65.00	66.00	68.00	69.00	71.00
ANS Wellhead Weighted Average All Destinations	54.48	49.22	50.83	51.41	52.54	54.69	55.55	57.38	58.32	60.17
Spring 2020 Forecast										
ANS West Coast	51.65	37.00	41.00	44.00	46.00	48.00	49.00	50.00	51.00	53.00
ANS Wellhead Weighted Average All Destinations	43.18	27.32	30.92	33.50	35.61	37.74	38.57	39.38	40.32	42.17
Dollar Amount Change from Prior Forecast										
ANS West Coast	-11.89	-22.00	-20.00	-18.00	-17.00	-17.00	-17.00	-18.00	-18.00	-18.00
ANS Wellhead Weighted Average All Destinations	-11.30	-21.91	-19.91	-17.92	-16.93	-16.95	-16.97	-17.99	-18.00	-18.00
Percent Change from Prior Forecast										
ANS West Coast	-18.7%	-37.3%	-32.8%	-29.0%	-27.0%	-26.2%	-25.8%	-26.5%	-26.1%	-25.4%
ANS Wellhead Weighted Average All Destinations	-20.7%	-44.5%	-39.2%	-34.9%	-32.2%	-31.0%	-30.6%	-31.4%	-30.9%	-29.9%

Production Difference from Prior Forecast

Fall 2019 forecast and Spring 2020 forecast

Fiscal Year	Thousand Barrels per Day									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Fall 2019 Forecast ¹										
Alaska North Slope	492.1	490.5	460.1	439.7	434.3	450.0	458.9	468.9	482.5	494.5
Non-North Slope	16.2	15.7	13.7	12.4	11.3	10.5	9.8	9.5	9.5	9.2
Total	508.3	506.1	473.8	452.1	445.7	460.4	468.7	478.4	492.0	503.7
Spring 2020 Forecast ¹										
Alaska North Slope	486.4	486.5	458.0	438.2	433.2	448.9	457.0	466.2	479.0	491.0
Non-North Slope	14.2	15.9	14.6	12.9	11.8	11.0	10.3	9.9	9.7	9.5
Total	500.7	502.4	472.6	451.1	445.1	459.8	467.3	476.1	488.7	500.6
Volume Change from Prior Forecast										
Alaska North Slope	-5.6	-3.9	-2.1	-1.5	-1.1	-1.1	-1.9	-2.7	-3.5	-3.5
Non-North Slope	-2.0	0.2	0.9	0.5	0.5	0.5	0.5	0.5	0.2	0.3
Total	-7.7	-3.7	-1.2	-1.0	-0.6	-0.6	-1.3	-2.3	-3.2	-3.2
Percent Change from Prior Forecast										
Alaska North Slope	-1.1%	-0.8%	-0.5%	-0.3%	-0.3%	-0.2%	-0.4%	-0.6%	-0.7%	-0.7%
Non-North Slope	-12.4%	1.6%	6.5%	4.3%	4.2%	4.9%	5.3%	4.8%	2.6%	3.4%
Total	-1.5%	-0.7%	-0.3%	-0.2%	-0.1%	-0.1%	-0.3%	-0.5%	-0.7%	-0.6%

¹ Fall 2019 and Spring 2020 Forecasts assume that for all years of the forecast, 10,000 barrels per day of Natural Gas Liquids (NGLs) will be shipped from Prudhoe Bay to Kuparuk for use in a large scale enhanced oil recovery project. These NGLs are excluded from production forecasts reported in this table.