

Spring 2021 Revenue Forecast

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Department of Revenue

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March 15, 2021

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 2021 Revenue Forecast. This publication provides a history and projection of state revenues and is a collaborative effort among the Department of Revenue and several other state agencies.

Compared to the Fall 2020 forecast, the Alaska North Slope oil price forecast has been increased by \$7.73 per barrel for fiscal year (FY) 2021 and \$13.00 per barrel for FY 2022. The Alaska North Slope oil production forecast has been increased by 4,700 barrels per day for FY 2021 and 20,100 barrels per day for FY 2022. Driven by this improved outlook for oil price and production, the Unrestricted General Fund (UGF) revenue forecast has been increased by \$332 million for FY 2021 and \$460 million for FY 2022. Forecasts for oil price, oil production, and revenue have also been materially increased for all forecast years beyond FY 2022.

UGF revenue, before accounting for the transfer from the Permanent Fund Earnings Reserve, is forecast to be \$1.6 billion in FY 2021 and \$1.7 billion in FY 2022.

The Permanent Fund is expected to transfer \$3.1 billion to the general fund per year in both FY 2021 and FY 2022. These amounts include funds that are available for general government spending and payment of dividends. With continued growth of the fund, the Permanent Fund transfer remains the state's largest source of UGF revenue, contributing 65% of UGF in FY 2020 and projected to contribute at least 58% in each of the next ten years.

In terms of petroleum revenue, the revenue forecast is based on Alaska North Slope oil prices of \$53.05 for FY 2021 and \$61.00 for FY 2022, climbing to \$71.00 by FY 2030. The oil price forecast is based on futures market prices and reflects recent recovery in oil markets. Following unprecedented oil market volatility last year, global oil supply and demand appear to be returning to balance as the recovery from the COVID-19 pandemic unfolds. Meanwhile, Alaska North Slope oil production is expected to average 482,000 barrels per day in FY 2021 and 459,700 barrels per day in FY 2022, before climbing to 565,500 barrels per day by FY 2030. Drilling and investment were sharply reduced

last year and that is reflected in the near-term forecast. Over the coming decade, the forecast represents a lower expected decline rate for the larger currently producing fields as well as an improved outlook for new developments due to higher oil price expectations.

This Spring 2021 revenue forecast comes during a continued period of uncertainty regarding COVID-19. Given the uncertainty and unprecedented nature of the COVID-19 pandemic, it is impossible to make predictions on the stock market, oil prices, future tourist activity, or revenue with a high degree of certainty. In order to honor this uncertainty, the department has developed a plausible scenario upon which to base the spring revenue forecast. Key elements of this forecast scenario are detailed in the executive summary.

As of this writing, Congress has just passed the "American Rescue Plan" which will provide \$1.9 trillion of COVID-19 relief to states, schools, and local governments. Alaska will receive a significant amount of additional federal funds over the next few months from this legislation, however, the amount is indeterminate at this time. As a result, this forecast does not include the additional federal funds that may be appropriated in FY 2021 and beyond.

Sincerely,

Lucinda Mahoney Commissioner

lucinda mahoney

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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) Investment Revenue, primarily from the Alaska Permanent Fund and the Constitutional Budget Reserve Fund (CBRF); 2) Federal Revenue; 3) Petroleum Revenue; and 4) Non-petroleum Revenue from sources such as taxes, charges for services, licenses and permits, fines and forfeitures.

Unrestricted general fund (UGF) revenue, before the transfer from the Permanent Fund Earnings Reserve, is estimated to be \$1.6 billion for FY 2021 and \$1.7 billion for FY 2022. For FY 2021, UGF revenue is expected to consist of \$1.2 billion from petroleum and \$0.4 billion from non-petroleum sources. For FY 2022, UGF revenue is

expected to consist of \$1.3 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 \$3.1 billion in both FY 2021 and in FY 2022. The amounts transferred in each fiscal year are for both payment of Permanent Fund Dividends and for general government spending.

This Spring 2021 forecast reflects an increase in expected UGF revenue as compared to the fall 2020 forecast. For FY 2021, projected UGF revenue has been increased by \$332 million, with a \$299 million increase to expected petroleum revenue and a \$33 million increase to expected non-petroleum revenue, including investment. For FY 2022, projected UGF revenue has been increased by \$460 million, with a \$478 million increase to expected petroleum revenue and an \$18 million reduction to expected non-petroleum revenue. Petroleum revenue increases are largely a function of a higher oil price forecast, as well as an increased outlook for Alaska oil production.

In FY 2020, total state revenue from all sources amounted to an estimated \$8.7 billion. Total state revenue for FY 2021 is expected to increase to \$11.6 billion. In FY 2022, total state revenue is forecast to be \$11.0 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 2021 and \$5.3 billion in FY 2022.

Forecasting and COVID-19

This Spring 2021 revenue forecast comes during a continued period of uncertainty regarding COVID-19. Given the 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 a high degree of certainty. In recognition of this uncertainty, the department has developed a plausible scenario upon which to base the spring revenue forecast.

Key elements of this forecast scenario include:

Investment Revenue: The forecast is based on a most likely case for expected investment returns which presumes continued stable growth in markets.

Federal Revenue: The forecast incorporates stimulus funding through February 2021 and is based on a return to more typical levels of federal funding. The forecast does not include any potential new stimulus funds including the stimulus package currently being discussed as of early March 2021.

Petroleum Revenue: Following low prices and production curtailments impacting oil and gas in April through June of 2020, the oil market has become more stabilized. The forecast is based on oil prices as indicated by futures markets and does not assume any further production curtailments.

Non-Petroelum Revenue: The Spring 2021 forecast is based on a scenario for a return to normalcy following COVID-19. The scenario assumes that business shutdowns will reverse over the course of FY 2021, and that most

economic activity will return to baseline levels by FY 2022. For tourism, the forecast assumes that the 2021 summer tourism season (FY 2021-2022) is largely lost with no large cruise ship visits and minimal independent tourists. The 2022 summer season (FY 2022-2023) is expected to proceed, including resumption of large cruise ship visits, but only at 50% of previously expected levels. For summer 2023 (FY 2023-2024), tourism activity is assumed to return to 75% of previously expected levels. From summer 2024 (FY 2024-2025) on, activity is expected 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.

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.

Forecasting Method Notes

The Spring 2021 forecast is based on laws in place as of February 28, 2021.

The FY 2020 historical numbers in this document have been updated from the Fall 2020 *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

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Total State Revenue

By restriction and type

History Forecast 2020 2021 2022 Fiscal Year **Unrestricted Revenue Sources Unrestricted General Fund Revenue** Investment Revenue 2.991.2 3.113.6 3,090.1 Petroleum Revenue 1,083.1 1,160.8 1,286.5 Non-Petroleum Revenue 454.8 389.0 355.0 **Total Unrestricted General Fund Revenue** 4,529.1 4,663.5 4,731.5 **Restricted Revenue Sources Designated General Fund Revenue** Investment Revenue 33.5 42.7 45.1 Petroleum Revenue 1 67.8 57.0 55.4 7 Non-Petroleum Revenue 433.3 401.8 431.2 **Subtotal Designated General Fund Revenue** 534.6 501.5 531.7 Other Restricted Revenue Investment Revenue 2 -1,242.0899.1 1,174.9 10 Petroleum Revenue 1 537.3 300.0 327.7 11 Non-Petroleum Revenue 125.3 198.2 204.7 12 Subtotal Other Restricted Revenue -579.4 1,397.3 1,707.2 **Federal Revenue** 4,173.0 5.068.1 4.056.5 13 Federal Receipts 14 Petroleum Revenue 3 16.4 11.4 13.8 15 Subtotal Federal Revenue 4,189.4 5,079.5 4,070.3 16 Total Restricted Revenue 4,144.6 6,978.2 6,309.3 17 Total State Revenue 8,673.7 11,641.7 11,040.8

Millions of Dollars

¹ The constitutionally dedicated 25% of minerals-related royalties, bonuses, rents, and interest to the Permanent Fund is shown as Other Restricted revenue. Beginning with FY 2020, the additional 25% for leases issued after December 1, 1979, as referred to in AS 37.13.010(a), is shown as Designated General Fund revenue. Previously, the additional 25% was shown as Other Restricted revenue; this change in presentation was made for conformity to budget documents.

² Beginning with FY 2020, investment earnings of the Alaska Capital Income Fund are excluded from this number.

³ 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 type and source

	By type and source		Milli	ons of Dollars	
			History	Foreca	st
		Fiscal Year	2020	2021	2022
	Unrestricted Investment Revenue				
	Investment Revenue				
1	Alaska Permanent Fund		2,933.1	3,091.5	3,069.3
2	Investments		58.1	22.1	20.8
3	Total Unrestricted Investment Revenue		2,991.2	3,113.6	3,090.1
	Unrestricted Petroleum Revenue				
4	Petroleum Taxes Petroleum Property Tax		122.9	122.2	114.9
5	Petroleum Corporate Income Tax		-0.2	25.0	25.0
6	Oil and Gas Production Tax		285.1	311.0	376.2
7	Subtotal Petroleum Taxes		407.9	458.2	576.2 516.1
	Royalties (including Bonuses, Rents, and Interest)				
8	Mineral Bonuses and Rents		19.6	25.9	20.1
9	Oil and Gas Royalties		660.3	676.7	750.2
10	Interest		-4.6	0.0	0.0
11	Subtotal Royalties		675.3	702.7	770.4
12	Total Unrestricted Petroleum Revenue		1,083.1	1,160.8	1,286.5
	Unrestricted Non-Petroleum Revenue				
	Non-Petroleum Taxes				
	Excise Tax				
13	Alcoholic Beverage		20.4	20.1	20.3
14	Tobacco Product – Cigarette		29.4	24.2	23.2
15	Tobacco Product – Other		12.0	14.0	14.0
16	Electric and Telephone Cooperative		0.2	0.2	0.2
17	Insurance Premium Tax 1		58.4	59.0	56.9
18	Marijuana		6.4	7.1	8.0
19	Motor Fuel (Refined Fuel Surcharge)		6.9	6.1	6.7
20 21	Tire Fee Subtotal Excise Tax		1.4 135.0	1.4 132.1	1.4 130.7
21					
22	Corporate Income Tax		102.4	55.0	10.0
	Fisheries Tax				
23	Fisheries Business		24.1	12.9	13.8
24	Fishery Resource Landing		9.8	5.9	6.2
25	Subtotal Fisheries Tax		33.9	18.8	20.0
00	Other Tax		0.4	0.4	0.4
26	Charitable Gaming		2.4	2.1	2.4
27	Large Passenger Vessel Gambling		13.1	0.0	0.0
28	Mining		36.8	33.9	45.1
29	Subtotal Other Tax		52.2	36.0	47.5
30	Subtotal Unrestricted Non-Petroleum Taxes		323.5	241.9	208.2



Chapter 2 Unrestricted General Fund Revenue

2 By type and source (Continued)

	2 by type and source (continued)		Millio	ons of Dollars	
			History	Forecas	
		Fiscal Year	2020	2021	2022
	Unrestricted Non-Petroleum Revenue				
31	Charges for Services		6.4	6.4	6.4
32	Fines and Forfeitures		15.1	12.8	12.8
	Licenses and Permits				
33	Motor Vehicle		33.6	32.2	32.2
34	Other		8.0	1.8	1.8
35	Subtotal Licenses and Permits		34.4	34.0	34.0
	Rents and Royalties				
36	Mining Rents and Royalties		1.6	1.8	1.8
37	Other Non-Petroleum Rents and Royalties		4.0	4.1	4.1
38	Subtotal Rents and Royalties		5.6	5.9	5.8
	Miscellaneous Revenues and Transfers				
39	Miscellaneous		21.0	30.0	30.0
40	Alaska Housing Finance Corporation Dividend		27.0	33.6	30.5
41	Alaska Industrial Development and Export Authority Dividend		10.3	14.5	17.3
42	Alaska Municipal Bond Bank Authority		0.0	0.0	0.0
43	Alaska Student Loan Corporation Dividend		0.0	0.0	0.0
44	Alaska Energy Authority		0.0	0.0	0.0
45	Alaska Natural Gas Development Authority		0.0	0.0	0.0
46	Mental Health Trust		0.0	0.0	0.0
47	Unclaimed Property		11.5	10.0	10.0
48	Subtotal Miscellaneous Revenues and Transfers		69.8	88.1	87.8
49	Total Unrestricted Non-Petroleum Revenue		454.8	389.0	355.0
50	Total Unrestricted General Fund Revenue		4,529.1	4,663.5	4,731.5

¹ 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 type and source

			Millio	ons of Dollars	
			History	Forecas	st
		Fiscal Year	2020	2021	2022
	Designated General Fund Restricted Revenue				
	Investment Revenue				
1	Investments – Designated General Fund		3.5	0.1	1.1
2	Other Treasury – Managed Funds		30.0	42.6	44.0
3	Subtotal Investment Revenue		33.5	42.7	45.1
	Petroleum Revenue				
	Royalties, Bonuses and Rents to Alaska Permanent Fund	1,2	67.8	57.0	55.4
5	Subtotal Petroleum Revenue		67.8	57.0	55.4
	Non-Petroleum Revenue				
6	Taxes		137.5	139.8	140.5
7	Charges for Services		226.6	186.8	211.7
8	Fines and Forfeitures		5.5	5.8	5.6
9	Licenses and Permits		1.1	1.8	1.8
10	Rents and Royalties 1,2		27.7	29.6	29.4
11	Other		34.9	38.1	42.2
12	Subtotal Non-Petroleum Revenue		433.3	401.8	431.2
13	Total Restricted Designated General Fund Revenue		534.6	501.5	531.7
	Other Restricted Revenue				
	Investment Revenue				
14	Investments – Other Restricted		12.2	0.2	3.9
15	Constitutional Budget Reserve Fund		62.8	2.0	5.5
16	Alaska Permanent Fund Restricted Earnings, net of Gener	ral Fund Draw ³	-1,317.0	896.9	1,165.5
17	Subtotal Investment Revenue		-1,242.0	899.1	1,174.9
	Petroleum Revenue				
18	Royalties, Bonuses and Rents to Alaska Permanent Fund	1,2	251.1	254.9	277.1
19	Royalties, Bonuses and Rents to Public School Trust Fund	1,2	5.0	5.1	5.5
20	Tax and Royalty Settlements to Constitutional Budget Rese	erve Fund	281.2	40.0	45.0
21	Subtotal Petroleum Revenue		537.3	300.0	327.7
	Non-Petroleum Revenue				
	Taxes		36.7	22.8	28.2
	Charges for Services		20.7	114.7	116.4
	Fines and Forfeitures		16.0	17.0	16.2
	Licenses and Permits		40.1	29.9	30.1
	Rents and Royalties ^{1,2}		3.2	3.8	3.7
			8.6	10.0	10.0
	Subtotal Non-Petroleum Revenue		125.3	198.2	204.7
29	Total Other Restricted Revenue		-579.4	1,397.3	1,707.2



Restricted Revenue

By type and source (Continued)

			Milli	ons of Dollars	
			History	Forecas	t
		Fiscal Year	2020	2021	2022
	Restricted Federal Revenue				
30	Federal Receipts		4,173.0	5,068.1	4,056.5
	Petroleum Revenue				
31	NPR-A Royalties (includes bonuses, rents, and interest) ^{2,4}		16.4	11.4	13.8
32	Total Restricted Federal Revenue		4,189.4	5,079.5	4,070.3
02	Total Restricted Federal Revenue		4,100.4	0,010.0	4,070.0
22	Total Bootrieted Bourney		4.444.6	C 070 0	C 200 2
33	Total Restricted Revenue		4,144.6	6,978.2	6,309.3

¹ The constitutionally dedicated 25% of minerals-related royalties, bonuses, rents, and interest to the Permanent Fund is shown as Other Restricted revenue. Beginning with FY 2020, the additional 25% for leases issued after December 1, 1979, as referred to in AS 37.13.010(a), is shown as Designated General Fund revenue. Previously, the additional 25% was shown as Other Restricted revenue; this change in presentation was made for conformity to budget documents.

 $^{^{\}rm 2}\,\mbox{Royalties}$ revenue reported here includes bonuses, rents, and interest.

³ While payouts are limited to realized earnings, both unrealized and realized earnings are shown per Generally Accepted Accounting Principles (GAAP). Restricted earnings starting in FY 2019 consist of unrealized earnings plus realized earnings, less the transfer to the general fund. Beginning in FY 2020, investment earnings of the Alaska Capital Income Fund are excluded from this number.

⁴ Petroleum 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 2020 actuals and FY 2021 - FY 2030 forecast

			Millions of Dollars										
			History					For	ecast				
	Fisc	al Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Unrestricted Gene Fund Revenue	eral											
1	Investment Revenu	ıe	2,991.2	3,113.6	3,090.1	3,235.4	3,325.0	3,378.7	3,433.3	3,515.0	3,601.7	3,690.4	3,783.1
2	Petroleum Revenu	е	1,083.1	1,160.8	1,286.5	1,407.2	1,551.8	1,667.8	1,708.4	1,759.5	1,832.8	1,920.9	2,036.6
3	Non-Petroleum Re	venue	454.8	389.0	355.0	485.4	497.3	512.4	523.1	528.4	537.1	536.2	539.9
4	Total Unrestricted General Fund Revenue	I	4,529.1	4,663.5	4,731.5	5,128.0	5,374.1	5,558.9	5,664.8	5,802.9	5,971.5	6,147.5	6,359.5
5	Percent from Petro	leum	24%	25%	27%	27%	29%	30%	30%	30%	31%	31%	32%
6	Permanent Fund Transfer		2,933.1	3,091.5	3,069.3	3,207.0	3,289.0	3,335.0	3,382.0	3,456.0	3,535.0	3,616.0	3,701.0
7	Total Unrestricted Revenue (not including Perma Fund transfer)		1,596.0	1,572.0	1,662.2	1,921.0	2,085.1	2,223.9	2,282.8	2,346.9	2,436.5	2,531.5	2,658.5
8	Percent from Petro	leum	68%	74%	77%	73%	74%	75%	75%	75%	75%	76%	77%
	Selected Petroleu	m Data	1										
9	Price Per Barrel of Crude (Dollars) Average Daily ANS Production 1 (Tho	;	52.12	53.05	61.00	62.00	63.00	65.00	66.00	67.00	68.00	70.00	71.00
	Barrels Per Day)	usanu	471.8	482.0	459.7	476.6	502.4	511.6	515.1	526.3	541.1	555.5	565.5

¹ Spring 2021 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.

Chapter 3 Current-Year Revenue Subject to Appropriation

FY 2020 actuals and FY 2021 - FY 2030 forecast

	•		Millions of Dollars										
]	History					Fore	cast				
		Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Investm	ent Revenue											
1	Unrestric Fund	cted General	2,991.2	3,113.6	3,090.1	3,235.4	3,325.0	3,378.7	3,433.3	3,515.0	3,601.7	3,690.4	3,783.1
2	Designa Fund	ted General	33.5	42.7	45.1	45.7	46.3	46.9	47.5	48.1	48.7	49.2	49.8
3	CBRF		62.8	2.0	5.5	10.4	15.7	21.1	27.0	33.3	40.3	47.8	56.1
4	Subtota Rever	l Investment lue	3,087.5	3,158.3	3,140.7	3,291.5	3,387.0	3,446.7	3,507.8	3,596.4	3,690.7	3,787.4	3,889.0
	Petrole	ım Revenue											
	Fund	cted General	1,083.1	1,160.8	1,286.5	1,407.2	1,551.8	1,667.8	1,708.4	1,759.5	1,832.8	1,920.9	2,036.6
6	Bonus	s, Rents and ses to Alaska anent Fund ¹	67.8	57.0	55.4	56.5	69.2	88.3	102.3	116.9	129.7	140.4	146.6
7	Tax and Settler CBRF	Royalty nents to	281.2	40.0	45.0	15.0	15.0	10.0	10.0	10.0	10.0	10.0	10.0
8		l Petroleum	201.2	40.0	45.0	13.0	13.0	10.0	10.0	10.0	10.0	10.0	10.0
	Rever		1,432.1	1,257.8	1,386.9	1,478.7	1,636.1	1,766.1	1,820.7	1,886.4	1,972.4	2,071.3	2,193.2
	Non-Per	troleum Rever	nue										
9	Unrestric Fund	cted General	454.8	389.0	355.0	485.4	497.3	512.4	523.1	528.4	537.1	536.2	539.9
10	Designa Fund	ted General	430.4	398.3	427.7	428.7	429.9	431.8	433.6	435.8	437.3	438.7	439.9
11	Bonus	s, Rents and es to Alaska											
12	Tax and	nent Fund ¹ Royalty nents to	2.9	3.5	3.4	3.4	3.5	3.5	3.6	3.6	3.6	3.6	3.6
	CBRF		-1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Subtota Petrol												
	Reven	iue	886.8	790.8	786.1	917.5	930.6	947.7	960.2	967.8	978.0	978.5	983.4
14	Total Re												
		priation	5,406.4	5,206.9	5,313.7	5,687.7	5,953.7	6,160.5	6,288.7	6,450.7	6,641.1	6,837.2	7,065.6

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

¹The constitutionally dedicated 25% of minerals-related royalties, bonuses, rents, and interest to the Permanent Fund is shown as Other Restricted revenue. Beginning with FY 2020, the additional 25% for leases issued after December 1, 1979, as referred to in AS 37.13.010(a), is shown as Designated General Fund revenue. Previously, the additional 25% was shown as Other Restricted revenue; this change in presentation was made for conformity to budget documents.

ANS Oil and Gas Production Tax

Data summary

	•	_	History	Fore	ecast
		Fiscal Year	2020	2021	2022
	North Slope Price (dollars per barrel)				
1	ANS West Coast		52.12	53.05	61.00
2	Transportation Costs and Other		8.16	8.89	9.72
3	ANS Wellhead		43.96	44.16	51.28
	North Slope Production ¹ (thousand barrels per day)				
4	Total ANS Production		471.8	482.0	459.7
5	Royalty and Federal ²		58.2	58.4	55.3
6	Taxable Barrels		413.6	423.6	404.4
	North Slope Lease Expenditures 3, 4 (millions of dollars)				
	Allowable North Slope Lease Expenditures				
7	Operating Expenditures (OPEX)		2,910.6	2,362.2	2,376.3
8	Capital Expenditures (CAPEX)		2,633.2	1,436.8	2,514.3
9	Total Allowable North Slope Expenditures		5,543.8	3,799.0	4,890.6
	Deductible North Slope Lease Expenditures				
10	Operating Expenditures (OPEX)		2,245.8	2,283.4	2,255.3
11	Capital Expenditures (CAPEX)		2,031.8	1,267.3	2,029.2
12	Total Deductible North Slope Lease Expenditures		4,277.5	3,550.8	4,284.4
	State Production Tax Revenue ⁵				
13	Tax Revenue (millions of dollars)		285.1	311.0	376.2
14	Production Tax Collected per Taxable Barrel (dollars per barrel)		1.89	2.01	2.55
	Statewide Production Tax Credits 3, 6 (millions of dollars)				
15	Credits Used Against Tax Liability		603.2	850.0	766.0
16	Credits for Potential Purchase		1.1	0.0	114.0

¹ Spring 2021 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, plus barrels produced from federal offshore property.

³ Lease expenditures and credits used against tax liability for FY 2020 were prepared using unaudited company-reported estimates.

⁴ Expenditure forecasts for FY 2021 and FY 2022 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. For an illustration of the tax calculation, see Appendix Tables E-1, E-2, and E-3 in the Fall 2020 *Revenue Sources Book*.

⁶ Production tax credits shown include all production tax credits from all areas of the state. 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 2021 - FY 2030 forecast

						Millions	of Dollars				
						Fore	ecast				
	Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Statewide Credits										
1	Credits Used Against Tax Liability	850	766	792	947	1,120	1,041	1,044	1,084	1,243	1,245
2	Credits Purchased by the State ¹	0	114	117	137	159	153	64	0	0	0
3	Total Statewide Production Tax Credits	850	880	909	1,084	1,279	1,194	1,108	1,084	1,243	1,245
4	Statutory Appropriation to Oil and Gas Tax Credit Fund ²		114	117	137	159	153	154	159	179	187

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.

Note: As of the Spring 2021 forecast, \$744 million of outstanding credits are estimated to be available for state purchase. This forecast assumes that the statutory appropriation for purchase of tax credits will be made annually beginning in FY 2022. In this scenario, the final appropriation would be made in FY 2027 to retire all outstanding tax credits.

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 2011 - FY 2030

Millions of Dollars History Fiscal Year 2020¹ Credits Purchased by the State of Alaska **North Slope** Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b) Credits under AS 43.55.025² **Total North Slope** < 1 **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(I) Credits under AS 43.55.025² Credits under AS 43.203 **Total Non-North Slope Total Credits Purchased by the State** Credits Used Against Tax Liability 4,5 **North Slope** Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b) 10 Transitional Investment Credit: AS 43.55.023(i) 11 Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j)⁶ 1,001 1,037 12 Small-Producer Credit, AS 43.55.024(a)(c) Credits under AS 43.55.025² 14 Total North Slope 1,034 1,061 **Non-North Slope** 15 Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(I) 16 Small-Producer Credit, AS 43.55.024(a)(c) 17 Total Non-North Slope 18 Total Credits Used Against Tax Liability 1,063 1,036 Total Credits North Slope 1.188 1.086 1.129 20 Total Credits Non-North Slope 21 Total Statewide Production Tax Credits 1,511 1,213 1,114 1,162 22 Carried-Forward Credits Balances and Tax Value of Carried-Forward Annual Losses

credit category in the summary, was less than \$1 million in each year reported and is calculated in the total.

and Credits 7,8

^{*} Data cannot be reported due to confidentiality constraints.

¹These numbers are preliminary pending annual returns.

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

³Credits 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.

⁴The Education Credit, AS 43.55.019, though not reported in its own

⁵ For historical credits against tax liability, geographic location was determined by attributing all .023(I) 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

		Millions of Dollars									
					2001	Forec					
	Credits Purchased by the State of Alaska	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	North Slope										
1	Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	0	73	75	54	40	41	8	0	0	0
2	Credits under AS 43.55.025 ²	0	3	3	31	54	42	0	0	0	0
3	Total North Slope	0	76	78	85	94	83	8	0	0	0
	Non-North Slope										
4	Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b); Well Lease Expenditure, AS 43.55.023(l)	0	35	36	42	48	50	15	0	0	0
5	Credits under AS 43.55.025 ²	0	1	1	5	9	7	2	0	0	0
6	Credits under AS 43.20 ³	0	1	1	5	8	13	40	0	0	0
7	Total Non-North Slope	0	38	39	52	65	70	56	0	0	0
8	Total Credits Purchased by the State 8	0	114	117	137	159	153	64	0	0	0
	Credits Used Against Tax Liability ^{4, 5}										
	North Slope										
9	Qualified Capital Expenditure, AS 43.55.023(a); Carry-forward, AS 43.55.023(b)	10	0	0	0	0	0	0	0	0	0
	Transitional Investment Credit: AS 43.55.023(i)										
11	Per-Taxable-Barrel Credit, AS 43.55.024(i)-(j) ⁶	827	752	781	931	1,105	1,040	1,044	1,084	1,243	1,245
12		1	1	1	1	1	0	0	0	0	0
13	Credits under AS 43.55.025 ²	0	0	0	0	0	0	0	0	0	0
14		837	753	781	932	1,106	1,040	1,044	1,084	1,243	1,245
	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)	12	12	8	13	12	0	0	0	0	0
16	Small-Producer Credit, AS 43.55.024(a)(c)	2	2	2	3	3	2	0	0	0	0
17		13	14	10	15	14	2	0	0	0	0
18	Total Credits Used Against Tax Liability	850	766	792	947	1,120	1,041	1,044	1,084	1,243	1,245
19	Total Credits North Slope	837	829	860	1,017	1,200	1,122	1,053	1,084	1,243	1,245
20	Total Credits Non-North Slope	13	51	49	67	79	72	56	0	0	0
21	Total Statewide Production Tax Credits	850	880	909	1,084	1,279	1,194	1,108	1,084	1,243	1,245
22	Carried-Forward Credits Balances and Tax Value of Carried-Forward Annual										

380

524

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. ⁷This row includes estimates of carried-forward credits for previous calendar years for companies with over 50,000 BOE of production. These Carried-Forward Credits are held by companies that are not eligible for refund. Carried-forward credits are primarily for net operating losses under AS 43.55.023(b). The Tax Value of Carried-Forward Annual Losses is calculated by multiplying the amount of carried-forward annual loss by

the statutory 35% tax rate.

830

1,129

1,296

⁸ FY 2020 values reported here are estimated based on excess lease expenditures reported on annual tax returns through December 31, 2019 plus estimated carried-forward tax credits for companies not eligible for state purchase as of June 30, 2020. The department has not prepared final estimates for years prior to FY 2019 for total value at those points in time of carried-forward lease expenditures and credits.

1,435

1,531

1,598

Losses and Credits 7,8

1,641 1,646



Appendix A Petroleum Revenue

By restriction and type

		Millions of Dollars										
						His	story ¹					
	Fiscal Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
	Unrestricted Petroleum Reven	ue										
1	Petroleum Property Tax	110.6	111.2	99.3	128.1	125.2	111.7	120.4	121.6	119.5	122.9	
2	Petroleum Corporate											
	Income Tax	542.1	568.8	434.6	307.6	94.8	-58.8	-59.4	66.4	217.7	-0.2	
3	Production Tax	4,543.2	6,136.7	4,042.5	2,605.9	381.6	176.8	125.9	741.2	587.3	277.4	
4	Oil and Gas Hazardous Release	9.7	9.4	7.8	8.8	8.1	9.2	8.6	8.7	8.2	7.7	
5	Oil and Gas Royalties ²	1.821.3	2,022.8	1,748.4	1,685.0	1.052.1	840.3	676.2	977.8	1.074.5	660.3	
6	Bonuses, Rents and Interest ²	22.0	8.9	19.4	27.4	26.1	30.3	5.3	24.5	36.6	15.0	
U	bonuses, Rents and Interest	22.0	0.9	19.4	21.4	20.1	30.3	5.3	24.5	30.0	15.0	
7	Total Unrestricted											
	Petroleum Revenue	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	1,083.1	
8	Cumulative Total Unrestricted											
	Petroleum Revenue ³	93,389	102,247	108,599	113,362	115,050	116,159	117,036	118,976	121,020	122,103	
	Restricted Petroleum Revenue)										
9	NPR-A Rents,Royalties,											
	Bonuses	3.0	4.8	3.6	6.8	3.2	1.8	1.4	23.7	12.3	16.4	
10	Royalties to Permanent Fund 4	857.3	904.9	842.1	773.7	510.4	390.5	334.5	356.1	374.8	318.9	
11	Royalties to Public School Trust Fund	13.6	14.7	13.8	12.5	7.9	6.4	5.5	7.0	7.5	5.0	
12	Constitutional Budget	10.0	17.7	10.0	12.0	1.5	0.4	0.0	7.0	7.5	3.0	
12	Reserve Fund Deposits	187.2	102.8	357.4	177.4	149.9	119.1	481.9	121.3	181.2	281.2	
13	Total Restricted											
	Petroleum Revenue	1,061.1	1,027.2	1,216.9	970.4	671.4	517.8	823.2	508.0	575.8	621.5	

(Table continued, next page)



Appendix A Petroleum Revenue

By restriction and type (Continued)

		Millions of Dollars											
						Fo	recast						
	Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
	Unrestricted Petroleum Rever	nue											
1	Petroleum Property Tax	122.2	114.9	112.4	110.8	109.1	106.8	104.9	103.0	101.1	99.3		
2	Petroleum Corporate												
	Income Tax	25.0	25.0	110.0	125.0	125.0	130.0	140.0	155.0	160.0	165.0		
3	Production Tax	303.0	368.6	375.9	424.7	473.3	486.6	493.7	510.7	544.4	630.1		
4	Oil and Gas Hazardous Release	7.9	7.6	7.8	8.2	8.4	8.5	8.6	8.8	9.0	9.1		
5	Oil and Gas Royalties ²	676.7	750.2	780.9	863.0	931.8	956.4	992.1	1,035.1	1,086.2	1.113.0		
6	Bonuses, Rents and Interest ²	25.9	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1		
U	bonuses, Rents and interest	25.9	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1		
7	Total Unrestricted Petroleum Revenue	1.160.8	1.286.5	1,407.2	1,551.8	1,667.8	1,708.4	1,759.5	1,832.8	1.920.9	2.036.6		
	retioleum Revenue	1,100.0	1,200.5	1,407.2	1,551.6	1,007.0	1,700.4	1,733.3	1,032.0	1,920.9	2,030.0		
8	Cumulative Total Unrestricted												
	Petroleum Revenue ³	123,264	124,551	125,958	127,510	129,177	130,886	132,645	134,478	136,399	138,436		
	Restricted Petroleum Revenu	е											
9	NPR-A Rents,												
	Royalties, Bonuses	11.4	13.8	41.0	80.6	90.2	79.6	77.2	85.7	103.8	121.6		
10	Royalties to Permanent Fund 4	311.9	332.5	344.2	388.8	437.4	464.3	495.8	527.3	558.8	576.1		
11	Royalties to Public School Trust												
	Fund	5.1	5.5	5.8	6.4	7.0	7.2	7.6	8.0	8.4	8.6		
12	Constitutional Budget												
	Reserve Fund Deposits	40.0	45.0	15.0	15.0	10.0	10.0	10.0	10.0	10.0	10.0		
13	Total Restricted Petroleum Revenue	368.4	396.9	406.0	490.8	544.6	561.1	590.6	630.9	680.9	716.2		
		000.7	000.0			00	••••	000.0	000.0	000.0			

¹ Historical petroleum revenue can be found on the Tax Division's website at www.tax.alaska.gov/sourcesbook/qr.aspx?Chapter=26&FY=2021.

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

³ Based on revenue beginning in FY 1959.

⁴ Includes both Designated General Fund Royalties and Other Restricted Royalties.



Appendix B Price Difference from Prior Forecast

Fall 2020 forecast and Spring 2021 forecast

	Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Fall 2020 Forecast										
1	ANS West Coast	45.32	48.00	49.00	50.00	51.00	53.00	54.00	55.00	56.00	57.00
	ANS Wellhead Weighted Average										
2	All Destinations	36.11	38.09	38.74	39.90	40.99	42.48	43.11	44.04	45.02	46.01
	Spring 2021 Forecast										
3	ANS West Coast	53.05	61.00	62.00	63.00	65.00	66.00	67.00	68.00	70.00	71.00
	ANS Wellhead Weighted Average										
4	All Destinations	44.16	51.28	52.22	53.51	55.68	56.41	57.21	58.22	60.25	61.26
	Dollar Amount Change from Prior Forecast										
5	ANS West Coast	7.73	13.00	13.00	13.00	14.00	13.00	13.00	13.00	14.00	14.00
	ANS Wellhead Weighted Average										
6	All Destinations	8.05	13.19	13.48	13.61	14.69	13.92	14.10	14.19	15.23	15.25
	Percent Change from Prior Forecast										
7	ANS West Coast	17.1%	27.1%	26.5%	26.0%	27.5%	24.5%	24.1%	23.6%	25.0%	24.6%
	ANS Wellhead Weighted Average										
8	All Destinations	22.3%	34.6%	34.8%	34.1%	35.8%	32.8%	32.7%	32.2%	33.8%	33.1%



Production Difference from Prior Forecast

Fall 2020 forecast and Spring 2021 forecast

	Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Fall 2020 Forecast ¹										
1	Alaska North Slope	477.3	439.6	447.0	463.3	461.5	455.7	458.8	466.5	475.9	481.8
2	Non-North Slope	11.6	11.3	11.3	12.7	14.9	16.9	17.1	15.8	13.9	12.3
3	Total	488.9	450.9	458.2	476.1	476.5	472.6	475.9	482.3	489.8	494.1
	Spring 2021 Forecast ¹										
4	Alaska North Slope	482.0	459.7	476.6	502.4	511.6	515.1	526.3	541.1	555.5	565.5
5	Non-North Slope	11.5	11.7	12.2	14.2	16.8	19.0	19.1	17.7	15.8	14.2
6	Total	493.5	471.3	488.8	516.6	528.5	534.1	545.4	558.8	571.3	579.7
	Volume Change from Prior Forecast										
7	Alaska North Slope	4.7	20.1	29.6	39.1	50.1	59.4	67.5	74.6	79.6	83.7
8	Non-North Slope	-0.1	0.4	0.9	1.5	1.9	2.1	1.9	1.9	1.9	1.9
9	Total	4.5	20.4	30.5	40.5	52.0	61.5	69.4	76.5	81.5	85.6
	Percent Change from Prior Forecast										
10	Alaska North Slope	1.0%	4.6%	6.6%	8.4%	10.9%	13.0%	14.7%	16.0%	16.7%	17.4%
11	Non-North Slope	-1.2%	3.1%	7.8%	11.5%	12.6%	12.2%	11.3%	12.0%	13.6%	15.4%
12	Total	0.9%	4.5%	6.7%	8.5%	10.9%	13.0%	14.6%	15.9%	16.6%	17.3%

¹ Fall 2020 and Spring 2021 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.