IMPACT OF HB 247:
NORTH SLOPE ASSESSMENT

Presentation to House Resources Committee
Juneau, Alaska › Thursday, February 25, 2016

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KEY QUESTIONS RAISED BY HB 247 RE NORTH SLOPE

HB 247 is not a tax overhaul but it includes major changes along several key parameters

The bill targets legitimate concerns but also introduces a series of incremental tax hikes

Impact of changes will be highly variable depending on company's position and investment profile

- But most companies will see substantial adverse effects
- Retroactivity and effective date present additional challenges for ongoing operations

Stability is the most important element in any fiscal system

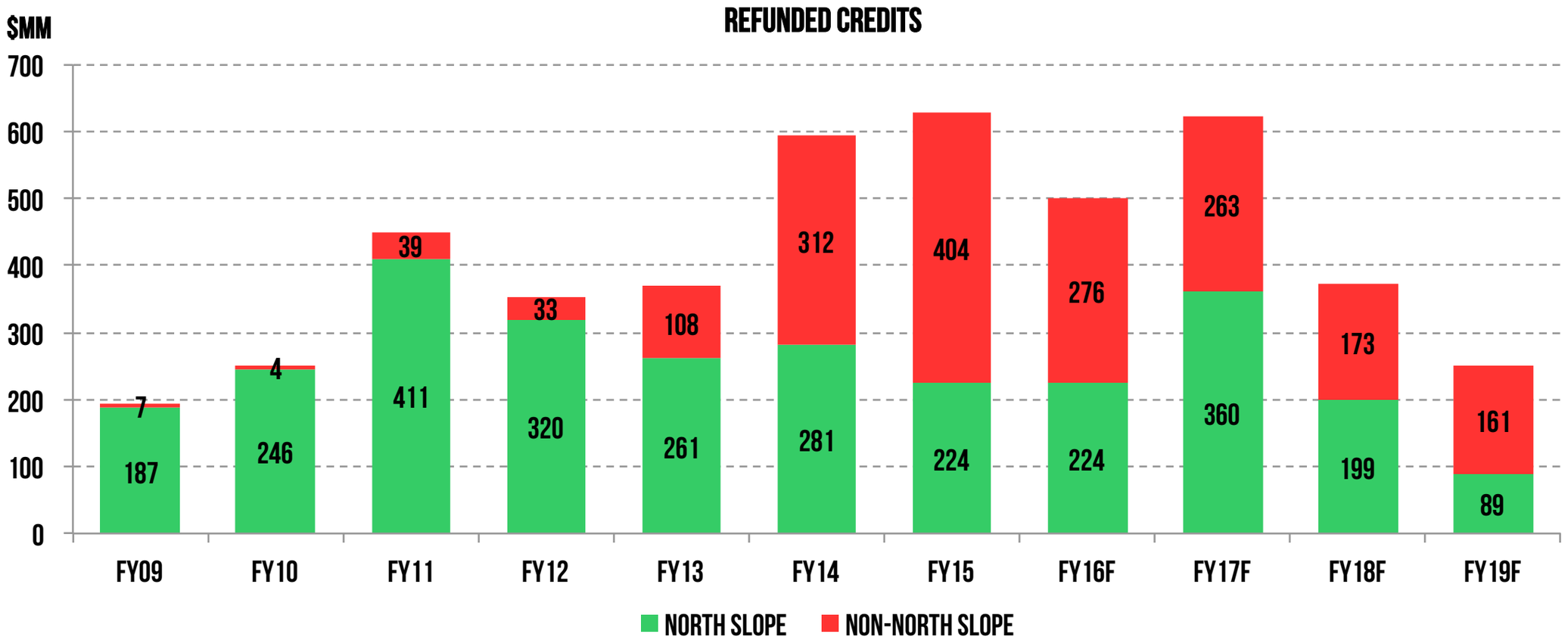
The biggest change is not in any single of the proposed changes—rather it is the fear of slippery slope

REFUNDED CREDITS REACHED NEW HIGH IN FY 2015

Refundable credits in FY 2015 reached $628 mm, the highest point ever

In both 2014 and 2015, the majority of these credits went to non-North Slope producers

Under DOR's current forecast, credits will exceed $1.1 billion in FY 2016 and FY 2017



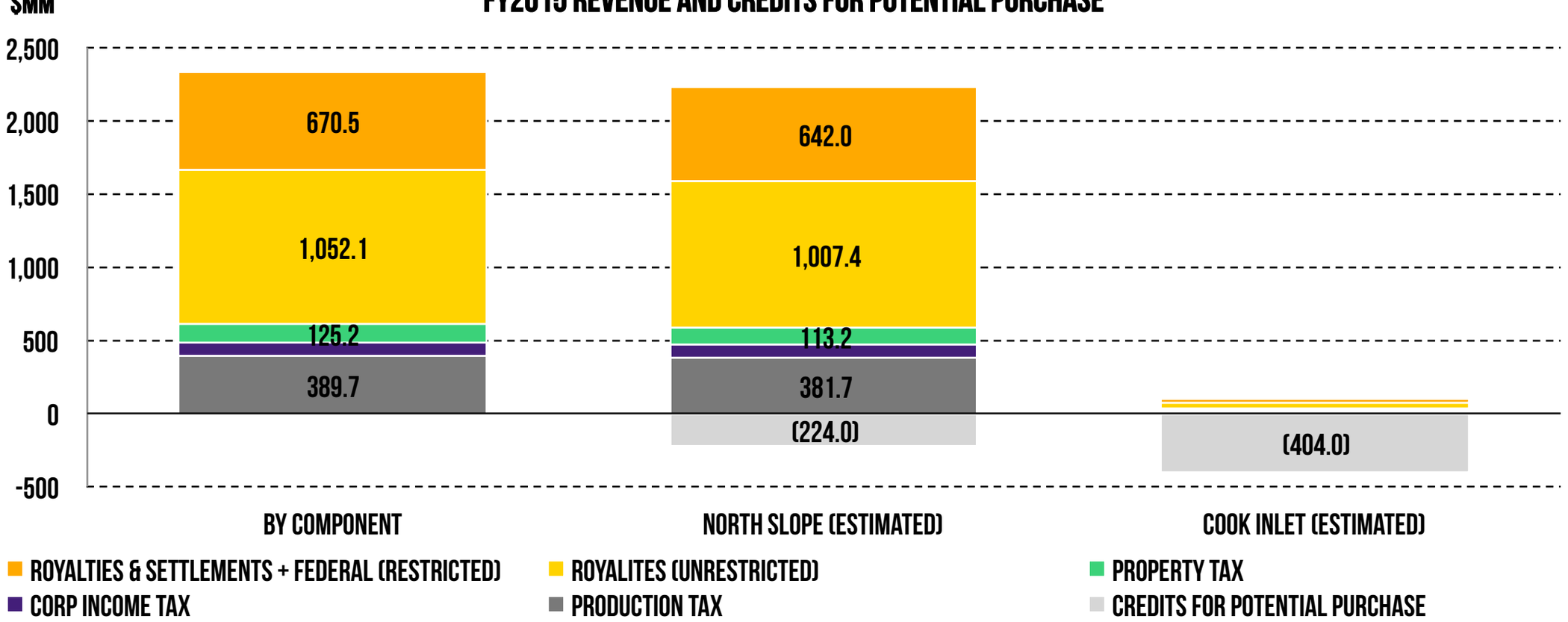
SOURCE: ALASKA DEPARTMENT OF REVENUE, TAX DIVISION

BIG DIFFERENCE BETWEEN NORTH SLOPE AND COOK INLET

The majority of refundable credits go to Cook Inlet producers

Cook Inlet production, however, generates limited direct revenue for the state

Credits on the North Slope are more limited but also a far smaller fraction of total value generated



SOURCE: ALASKA DEPARTMENT OF REVENUE, REVENUE SOURCES BOOK; TAX DIVISION; ENALYTICA ESTIMATES

ALASKA'S HYBRID SYSTEM: LOTS OF BIRDS, FEW STONES

Jurisdictions typically either gross or net profit systems; but Alaska has both gross and net pieces

- Gross includes royalties (12.5 to 16.7%), minimum production tax of 4% and property tax
- Net includes production taxes and corporate taxes

Net systems aim to minimize distortions and maximize returns across the commodity cycle

But net profit systems are suited for large, diversified economies that can manage revenue volatility

Royalties and gross minimum ensure substantial petroleum revenues even when commodity prices low

But gross taxes discourage investment when prices low or costs high

Difficult to balance regressive royalty (very high 'take' when prices low) with progressive net tax

Competing priorities - protect state in low prices, obtain 'fair share' when prices high

All successful fiscal regimes are a balance of risk and reward - tradeoffs are essential

It's hard to be both Norway and North Dakota at the same time

GROSS VS. NET TAX: TWO VERY DIFFERENT APPROACHES

Gross taxes

Less volatile, shift risk to private sector

Simple and easy to administer

High/low government take at low/high prices

Disadvantages marginal investment

Net taxes

More volatile revenues for government

Harder to administer

Efficient—do not distort decision-making

Enable investment across commodity cycle

SIMPLE, 10% GROSS TAX (VALUES IN $/BBL OR PERCENT)

	DIFFERENT PRICES			DIFFERENT CAPEX		
ANS WC	30	60	90	60	60	60
TRANSPORT	10	10	10	10	10	10
GVPP	20	50	80	50	50	50
OPEX	18	18	18	18	18	18
CAPEX	18	18	18	30	20	10
PTV/BBL	-16	14	44	2	12	22
GROSS TAX	2	5	8	5	5	5
% GROSS	10%	10%	10%	10%	10%	10%
% NET	N/A	36%	18%	250%	42%	23%

SIMPLE, 25% NET TAX (VALUES IN $/BBL OR PERCENT)

	DIFFERENT PRICES			DIFFERENT CAPEX		
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TRANSPORT	10	10	10	10	10	10
GVPP	20	50	80	50	50	50
OPEX	18	18	18	18	18	18
CAPEX	18	18	18	30	20	10
PTV/BBL	-16	14	44	2	12	22
NET TAX	-4	3.5	11	0.5	3	5.5
% GROSS	-20%	7%	14%	1%	6%	11%
% NET	25%	25%	25%	25%	25%	25%

CASHFLOW TAXES: MORE EFFICIENT, MORE VOLATILE

Purpose of net tax is to minimize distorting impact on investment

Best achieved by making the state's fiscal cost/benefit as close as possible to equity investor

Results in outflows during development, receipts during production

HIGHLY SIMPLIFIED CASHFLOW AND INCOME EXAMPLE

YEAR	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
PRODUCTION (THOUSAND BBLS)	-	-	-	1,000	1,000	900	810	729	656	590
ANS WC	60	60	60	60	60	60	60	60	60	60
TRANSPORT	10	10	10	10	10	10	10	10	10	10
GVPP/BBL	50	50	50	50	50	50	50	50	50	50
GVPP ($THOUSANDS)	-	-	-	50,000	50,000	45,000	40,500	36,450	32,805	29,525
OPEX				18,000	18,000	16,200	14,580	13,122	11,810	10,629
CAPEX	20,286	60,857	33,809	20,286	-	-	-	-	-	-
PRE-TAX CASHFLOW	(20,286)	(60,857)	(33,809)	11,714	32,000	28,800	25,920	23,328	20,995	18,896
ASSET VALUE	-	-	-	135,238	108,190	86,552	69,242	55,393	44,315	35,452
DEPRECIATION	-	-	-	27,048	21,638	17,310	13,848	11,079	8,863	7,090
NET INCOME	-	-	-	4,952	10,362	11,490	12,072	12,249	12,132	11,805
25% CASHFLOW TAX	(5,071)	(15,214)	(8,452)	2,929	8,000	7,200	6,480	5,832	5,249	4,724
25% INCOME TAX	-	-	-	1,238	2,590	2,872	3,018	3,062	3,033	2,951

ALASKA'S PRODUCTION TAX: ORIGINS IN 2006 PROPOSAL

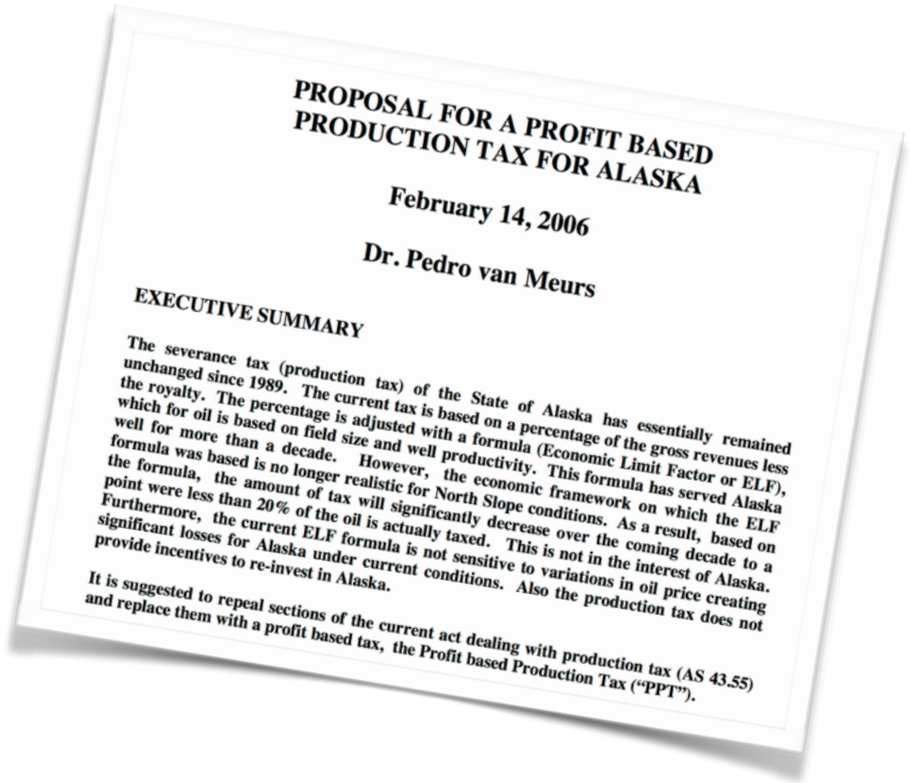
PPT as proposed by Dr Pedro van Meurs useful to understand core of system and evolution to date

25% flat cashflow tax, 25% credit for net operating losses (NOLs), 20% capital credit

45% government support for spending for new and incumbent players alike

Statewide floor of zero (credits tradable rather than reimbursable)

	DIFFERENT PRICES		
ANS WC	30	60	90
TRANSPORT	10	10	10
GVPP	20	50	80
OPEX	18	18	18
CAPEX	18	18	18
PTV/BBL	(16.0)	14.0	44.0
25% NET TAX	(4.0)	3.5	11.0
CAPITAL CREDIT	3.6	3.6	3.6
TAX AFTER CREDITS	(7.6)	(0.1)	7.4
% GROSS	-38%	0%	9%
% NET	#N/A	-1%	17%



PROPOSAL FOR A PROFIT BASED
PRODUCTION TAX FOR ALASKA

February 14, 2006

Dr. Pedro van Meurs

EXECUTIVE SUMMARY

The severance tax (production tax) of the State of Alaska has essentially remained unchanged since 1989. The current tax is based on a percentage of the gross revenues less the royalty. The percentage is adjusted with a formula (Economic Limit Factor or ELF), which for oil is based on field size and well productivity. This formula has served Alaska well for more than a decade. However, the economic framework on which the ELF formula was based is no longer realistic for North Slope conditions. As a result, based on the formula, the amount of tax will significantly decrease over the coming decade to a point were less than 20% of the oil is actually taxed. This is not in the interest of Alaska. Furthermore, the current ELF formula is not sensitive to variations in oil price creating significant losses for Alaska under current conditions. Also the production tax does not provide incentives to re-invest in Alaska.

It is suggested to repeal sections of the current act dealing with production tax (AS 43.55) and replace them with a profit based tax, the Profit based Production Tax ("PPT").

ACES: STEEP PROGRESSIVITY, HIGH SPENDING SUPPORT

Tax rate 25% to 75% (variable with PTV/bbl), 20% capital credit, 40% exploration credit, 25% NOL credit

High progressivity: high marginal tax rates (up to 86%, higher at yet-unseen prices)

High marginal rates + credits = very high state support for spending (from 45% to over 100%)

With high prices and low spending, brought huge revenue; low prices and high spending major risks

	DIFFERENT PRICES			DIFFERENT CAPEX		
ANS WC	30	60	90	60	60	60
TRANSPORT	10	10	10	10	10	10
GVPP	20	50	80	50	50	50
OPEX	18	18	18	18	18	18
CAPEX	18	18	18	30	20	10
PTV/BBL	(16.0)	14.0	44.0	2.0	12.0	22.0
NET TAX RATE	25%	25%	31%	25%	25%	25%
NET TAX CALC	-	3.5	13.5	0.5	3.0	5.5
4% GROSS FLOOR	0.8	2.0	3.2	2.0	2.0	2.0
TAX BEFORE CREDITS	0.8	3.5	13.5	2.0	3.0	5.5
NOL CREDIT	4.0	-	-	-	-	-
CAPITAL CREDIT	3.6	3.6	3.6	6.0	4.0	2.0
TAX AFTER CREDITS	(6.8)	(0.1)	9.9	(4.0)	(1.0)	3.5
% GROSS	-34%	0%	12%	-8%	-2%	7%
% NET	#N/A	-1%	22%	-200%	-8%	16%

SB21: PROTECT ON THE LOW END, GIVE BACK AT THE HIGH

Tax rate 35%, $0 to $8 per-bbl credit, hardened gross floor, 35% NOL credit

Key aim was to reduce state support for spending and make predictable: 35% for everyone

Reduced rates at high prices for competitiveness, but 4% gross floor binding to protect at low end

Significantly reduced the risks brought by low prices and high spending

	DIFFERENT PRICES			DIFFERENT CAPEX		
ANS WC	30	60	90	60	60	60
TRANSPORT	10	10	10	10	10	10
GVPP	20	50	80	50	50	50
OPEX	18	18	18	18	18	18
CAPEX	18	18	18	30	20	10
PTV/BBL	(16.0)	14.0	44.0	2.0	12.0	22.0
NET TAX RATE	35%	35%	35%	35%	35%	35%
NET TAX PRE $/BBL	-	4.9	15.4	0.7	4.2	7.7
$/BBL CREDIT	8.0	8.0	7.0	8.0	8.0	8.0
NET TAX CALC	(8.0)	(3.1)	8.4	(7.3)	(3.8)	(0.3)
4% GROSS FLOOR	0.8	2.0	3.2	2.0	2.0	2.0
TAX BEFORE NOL	0.8	2.0	8.4	2.0	2.0	2.0
NOL CREDIT	5.6	-	-	-	-	-
TAX AFTER CREDITS	(4.8)	2.0	8.4	2.0	2.0	2.0
% GROSS	-24%	4%	11%	4%	4%	4%
% NET	#N/A	14%	19%	100%	17%	9%

SB21: SPECIAL INCENTIVES FOR "NEW OIL"

Gross Value Reduction (GVR) - reduce GVPP by 20% or 10% for certain units / participating areas

Purpose of GVR - reduce effective tax rates for particular fields without ring-fencing costs

GVR-eligible production receives fixed $5/bbl credit, not variable $0-$8/bbl, no hard floor

	DIFFERENT PRICES			DIFFERENT CAPEX		
ANS WC	30	60	90	60	60	60
TRANSPORT	10	10	10	10	10	10
GVPP BEFORE GVR	20	50	80	50	50	50
GVPP AFTER GVR	16	40	64	40	40	40
OPEX	18	18	18	18	18	18
CAPEX	18	18	18	30	20	10
PTV/BBL BEFORE	(16.0)	14.0	44.0	2.0	12.0	22.0
PTV/BBL	(20.0)	4.0	28.0	(8.0)	2.0	12.0
NET TAX RATE	35%	35%	35%	35%	35%	35%
NET TAX	-	1.4	9.8	-	0.7	4.2
4% GROSS FLOOR	0.6	1.6	2.6	1.6	1.6	1.6
$/BBL CREDIT	5.0	5.0	5.0	5.0	5.0	5.0
TAX BEFORE NOL	(4.4)	(3.4)	4.8	(3.4)	(3.4)	(0.8)
NOL CREDIT	7.0	-	-	2.8	-	-
TAX AFTER	(11.4)	(3.4)	4.8	(6.2)	(3.4)	(0.8)
% GROSS	-57%	-7%	6%	-12%	-7%	-2%
% NET	#N/A	-24%	11%	-310%	-28%	-4%

Fiscal System Feature	Status Quo	HB 247 Proposed Change	Impact
Per-Barrel Credit and Gross Minimum Tax	Tax liabilities assessed annually, smoothing impact of price volatility.	Calculate $/bbl credit and Gross Minimum Tax interaction monthly.	State would have netted ~$100mm additional in 2014 under this system.
Gross Value Reduction and Net Operating Loss Credit	Gross Value Reduction artificially reduces Production Tax Value, and NOL credit is based on PTV, so 35% NOL credit can be given on loss greater than actual loss - effectively more than 35% support for spending.	Assess NOL credit on actual loss (not including GVR), so NOL is for 35% of actual loss, and all producers have 35% support for spending.	Net impact is to reduce state support for all spending to 35%. Questions exist about whether >35% spending support for GVR oil was deliberate incentive or unintended consequence under SB21.
Gross Minimum Tax	4% rate, binding for legacy output if net value is positive. If net value is negative, NOL can reduce taxes below floor. "New," GVR-eligible production can take to zero due to $5/bbl and small producer credit	Harden floor for all production: NOL credits can't take below floor for legacy, and NOL, small Producer and $5/bbl can't take below floor for GVR-eligible production. Increase rate from 4% to 5%	State revenues rise at low oil prices. For many new fields, taxes rise from 0 to 5% at current prices. For legacy production, taxes rise at time when value is negative.
Net Operating Loss credit reimbursement	Producers with >50 mb/d production must carry NOL forward, others can be reimbursed by the state	$25mm per company annual limit on reimbursement. Companies with annual revenues > $10bn must carry forward, regardless of production level.	Limit substantially increases capital needs for new developments; and if effective July 2016 would have major negative impact on developments underway. Raises hurdle/break-even price for projects by $5 to $15/bbl.

MONTHLY GROSS MIN CALCULATION: NEUTRAL OR TAX HIKE

Under volatility, gross minimum tax may apply to some months, while annual remains net profit-based

In 2014, gross minimum would have applied Nov & Dec, but not full-year✢

Enforcing monthly gross minimum would have netted additional ~$100mm✢

	ANS WC	TRANSPORT	OPEX	CAPEX	PTV/BBL	35%*PTV/BBL	LESS $8/BBL	4% OF GVPP	PROD TAX / BBL	LIABILITY $MM
ANNUAL										
2014	97.74	10.42	19.30	20.29	47.73	16.71	8.71	3.49	8.71	1,440.32
MONTHLY										
JAN-2014	103.82	10.42	19.30	20.29	53.81	18.83	10.83	3.74	10.83	
FEB-2014	106.30	10.42	19.30	20.29	56.29	19.70	11.70	3.84	11.70	
MAR-201	107.91	10.42	19.30	20.29	57.90	20.26	12.26	3.90	12.26	
APR-2014	107.36	10.42	19.30	20.29	57.35	20.07	12.07	3.88	12.07	
MAY-2014	108.06	10.42	19.30	20.29	58.05	20.32	12.32	3.91	12.32	
JUN-2014	110.76	10.42	19.30	20.29	60.75	21.26	13.26	4.01	13.26	
JUL-2014	107.63	10.42	19.30	20.29	57.62	20.17	12.17	3.89	12.17	
AUG-2014	101.78	10.42	19.30	20.29	51.77	18.12	10.12	3.65	10.12	
SEP-2014	96.05	10.42	19.30	20.29	46.04	16.12	8.12	3.43	8.12	
OCT-2014	84.91	10.42	19.30	20.29	34.90	12.21	4.21	2.98	4.21	
NOV-2014	77.41	10.42	19.30	20.29	27.40	9.59	1.59	2.68	2.68	
DEC-2014	60.90	10.42	19.30	20.29	10.89	3.81	(4.19)	2.02	2.02	
									9.31	1,540.94
INCREASE									0.61	100.62

✢single-taxpayer, taxable-barrel-based approximation, FY2014 DOR RSB costs, assumes no taxable production GVR-eligible

GVR RAISES NOL CREDIT ABOVE 35% OF ACTUAL LOSS

The purpose of the Gross Value Reduction (GVR) is to lower the effective tax rate on new production

The GVR mechanism was chosen because it enables this without requiring ring-fencing of costs

One surprising and counter-intuitive effect is to raise the effective rate of the NOL credit

Reasonable to see this as either unintended consequence, or part of incentive offered

	SB 21 GVR	HB 247
ANS WC	30	30
TRANSPORT	10	10
GVPP BEFORE GVR	20	20
GVPP AFTER GVR	16	16
OPEX	18	18
CAPEX	18	18
PTV/BBL BEFORE GVR	(16)	(16)
PTV/BBL	(20)	(20)
NET TAX RATE	35%	35%
NET TAX	-	-
4% GROSS FLOOR	0.6	0.6
$/BBL CREDIT	5.0	5.0
TAX BEFORE NOL	(4.4)	(4.4)
NOL CREDIT	7.0	5.6
TAX AFTER CREDITS	(11.4)	(10.0)
CREDIT % PTV (BEFORE GVR)	-44%	-35%

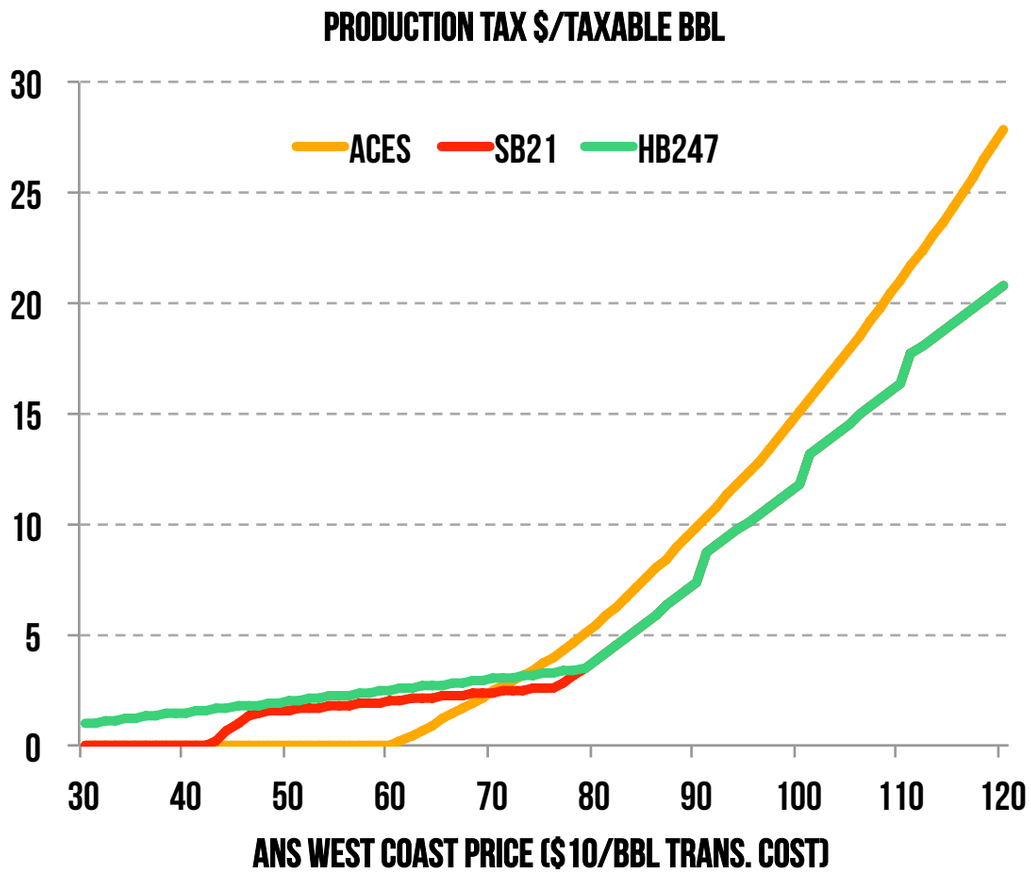
HARDER, HIGHER FLOOR RAISES TAXES ON LOSSES

Effective tax rate under ACES could fall to zero because capital credits were applied after gross floor

SB21 applied a hard gross floor under $/bbl credits - meaning skyrocketing net tax rate at low prices

Concern to protect state at low prices always valid

Competitive regimes balance risk and reward at low and high end

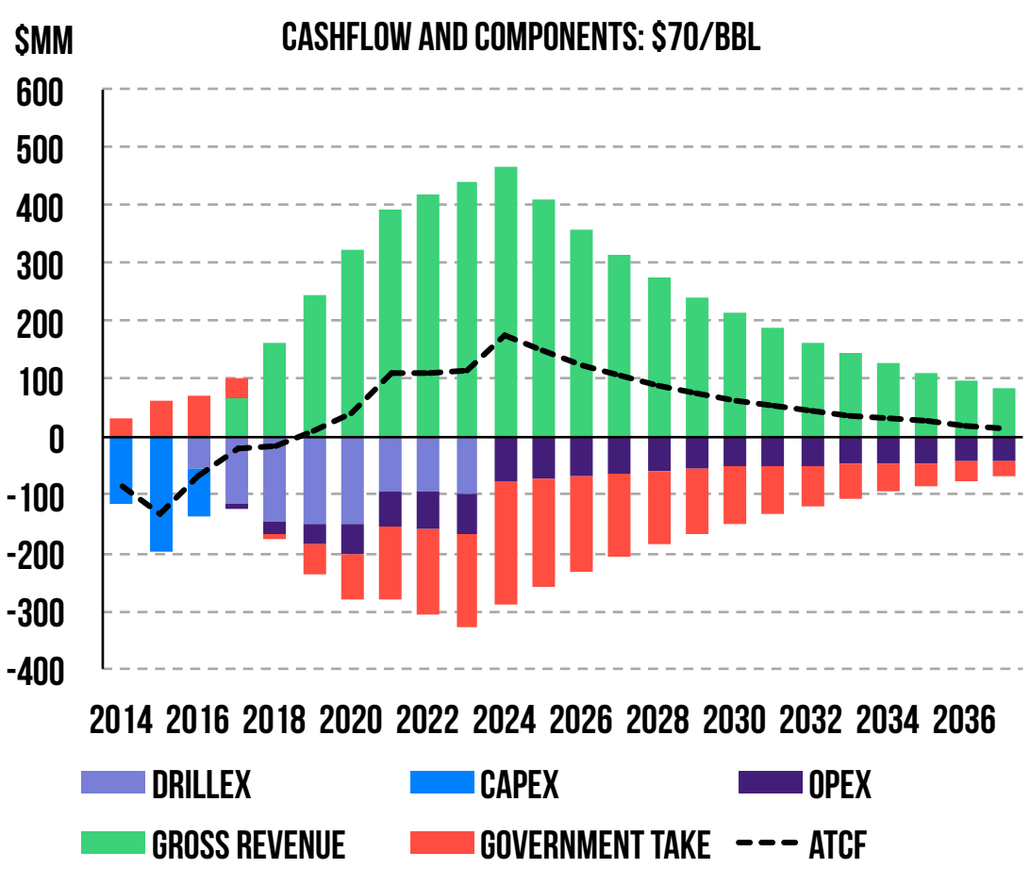


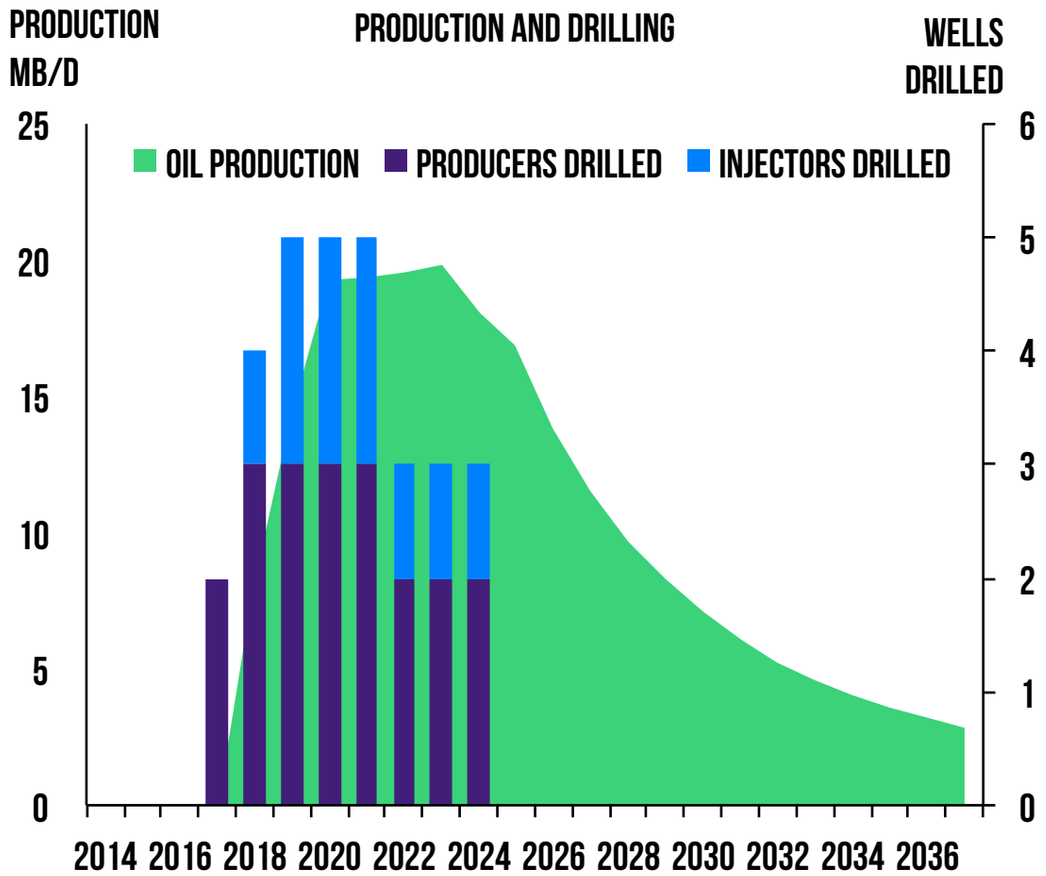
HOW DO CHANGES IMPACT NEW FIELD DEVELOPMENT?

To understand the cumulative impact of the proposed changes, we look at a sample NS investment

Cumulative CAPEX and drillex of $1.3 billion; average annual OPEX of about $15/bbl

Peak production of 20 mb/d; 30 wells (production and injection) drilled over 8 years





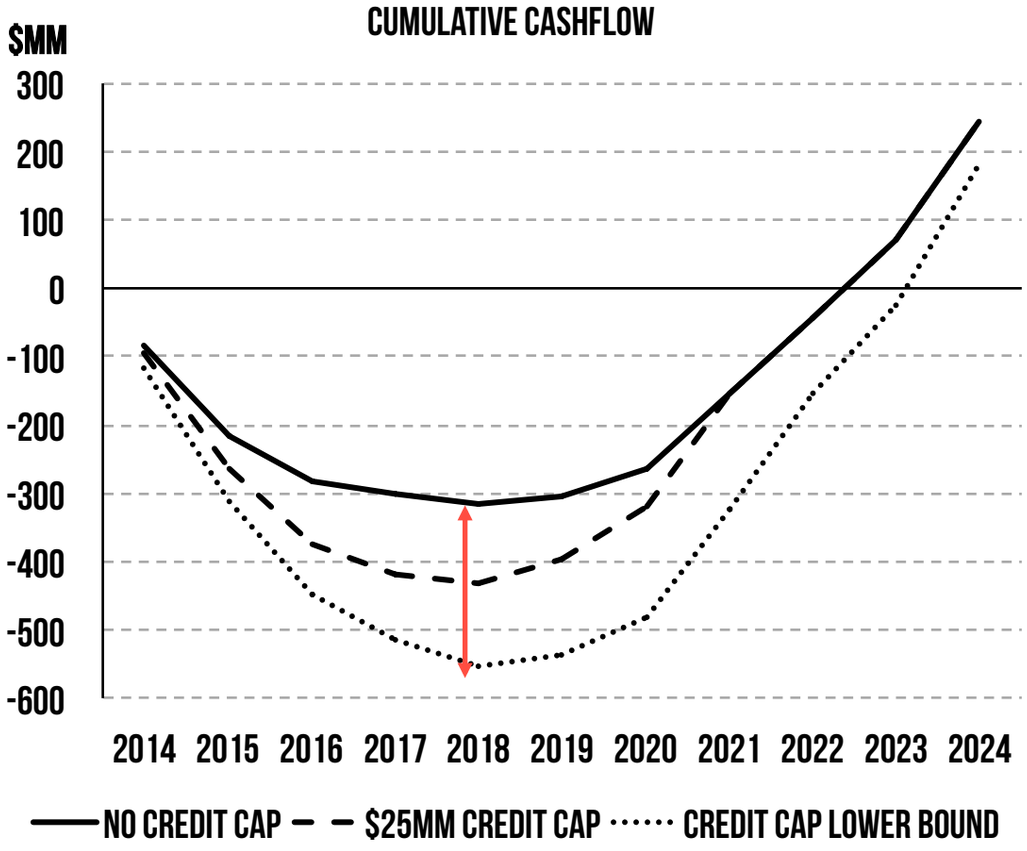
CHANGES BOOST CAPITAL NEEDS AND LOWER IRR

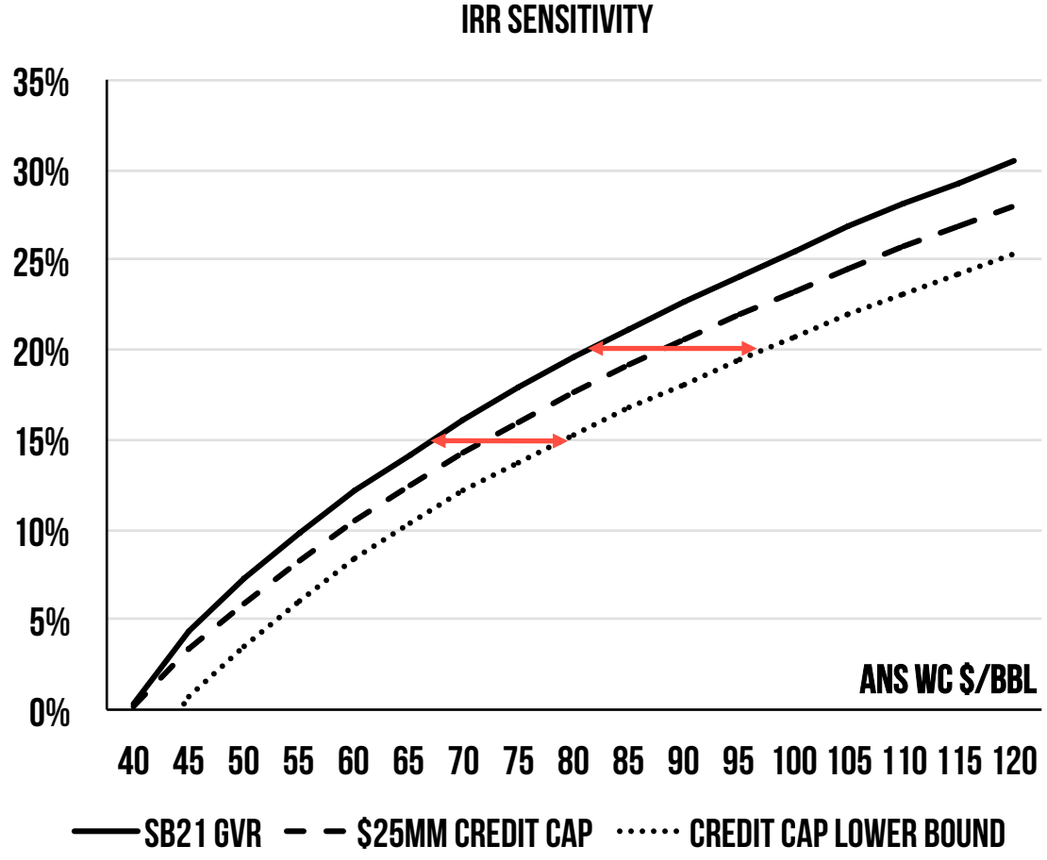
Refundable credit limit would increase capital needs by 33% to 50% (from $300mm to $400–$550mm)

For projects currently under development, July effective date would have major adverse impacts

Investment impact of refundable credit limit is to lower IRR / raise target price to meet hurdle IRR

Concern over future liability highly valid - but is this the best solution?





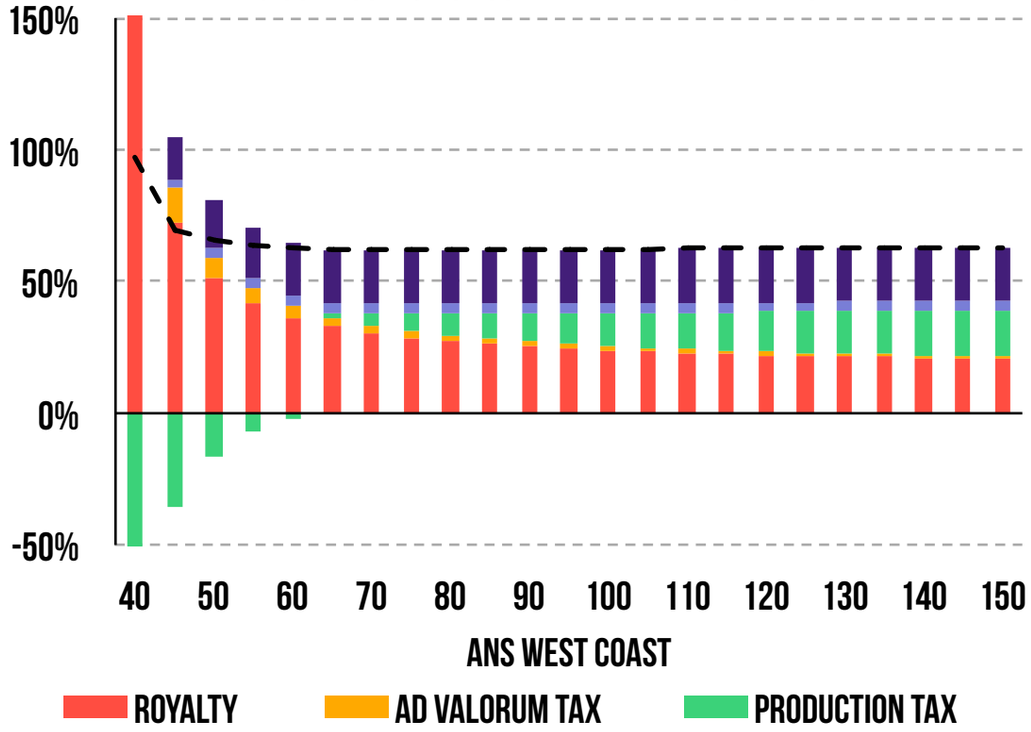
CHANGES MAKE REGRESSIVE SYSTEM EVEN MORE SO

State of Alaska making negative production tax in today's prices; but overall gov't take is still high

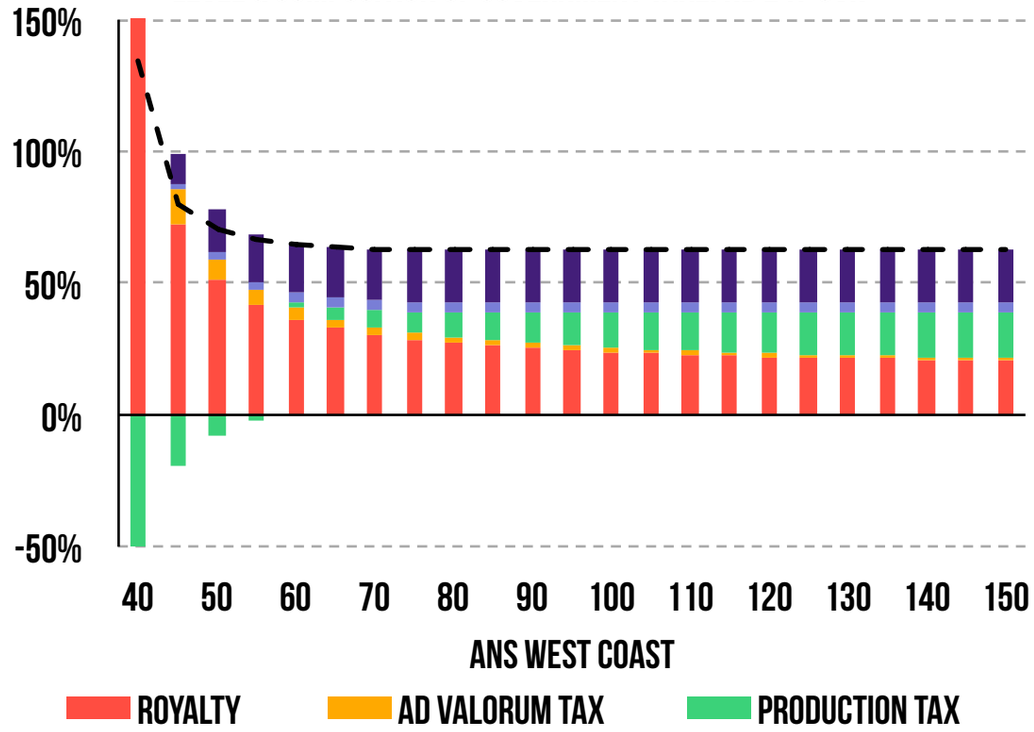
Cumulative impact of proposed changes would be to shift up government take in lower oil prices

In times of high investment / low prices (as in 2016), effective government take exceeds 100%

LEVEL & COMPOSITION OF GOVERNMENT TAKE: SB 21 GVR



LEVEL & COMPOSITION OF GOVERNMENT TAKE: HB 247 GVR



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- But most companies will see substantial adverse effects
- Retroactivity and effective date present additional challenges for ongoing operations

Stability is the most important element in any legal system

The biggest change is not in any single of the proposed changes—rather it is the fear of slippery slope