ACES, SB21/HB72 and CS SB21 (FIN) Analysis for House Resources Committee

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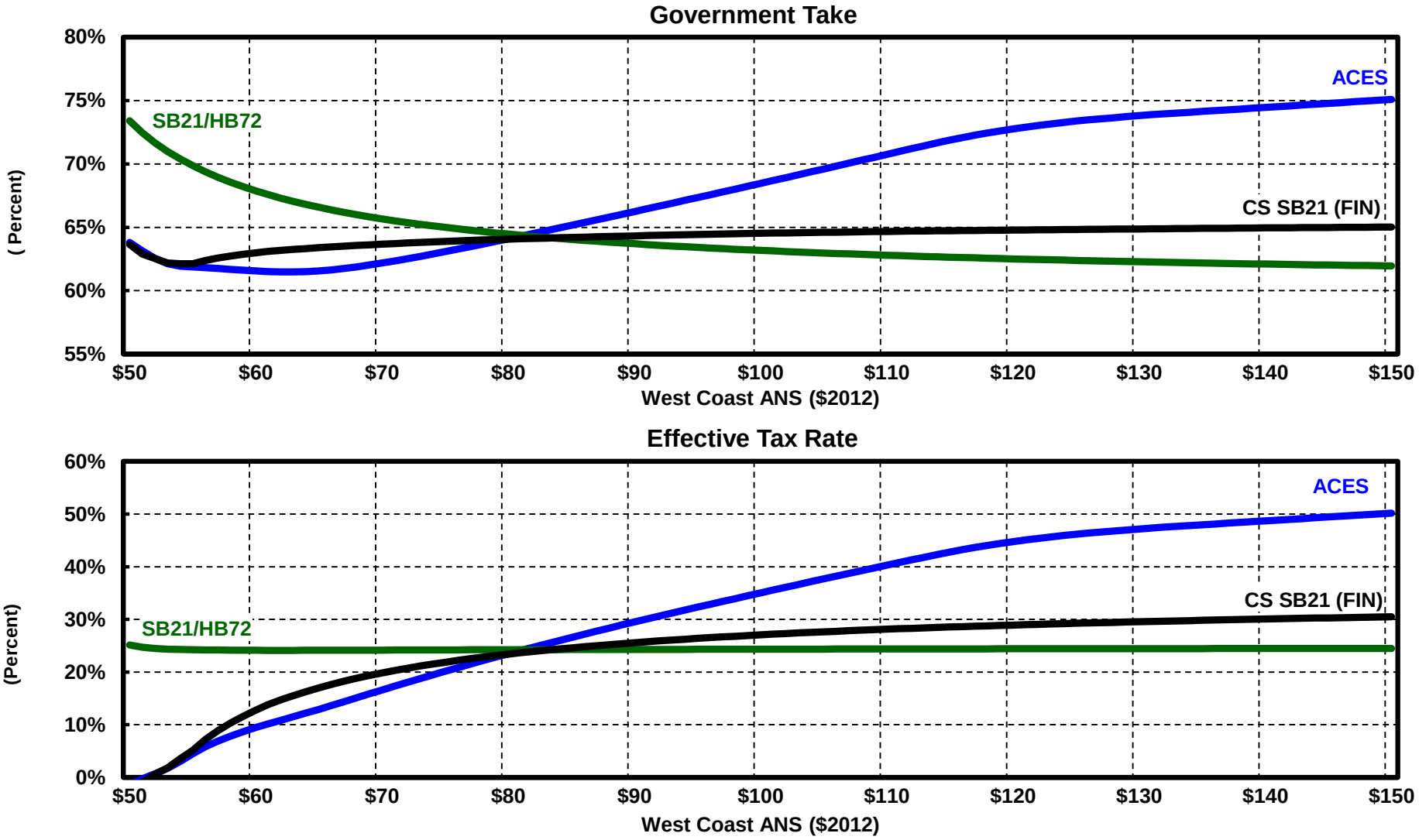
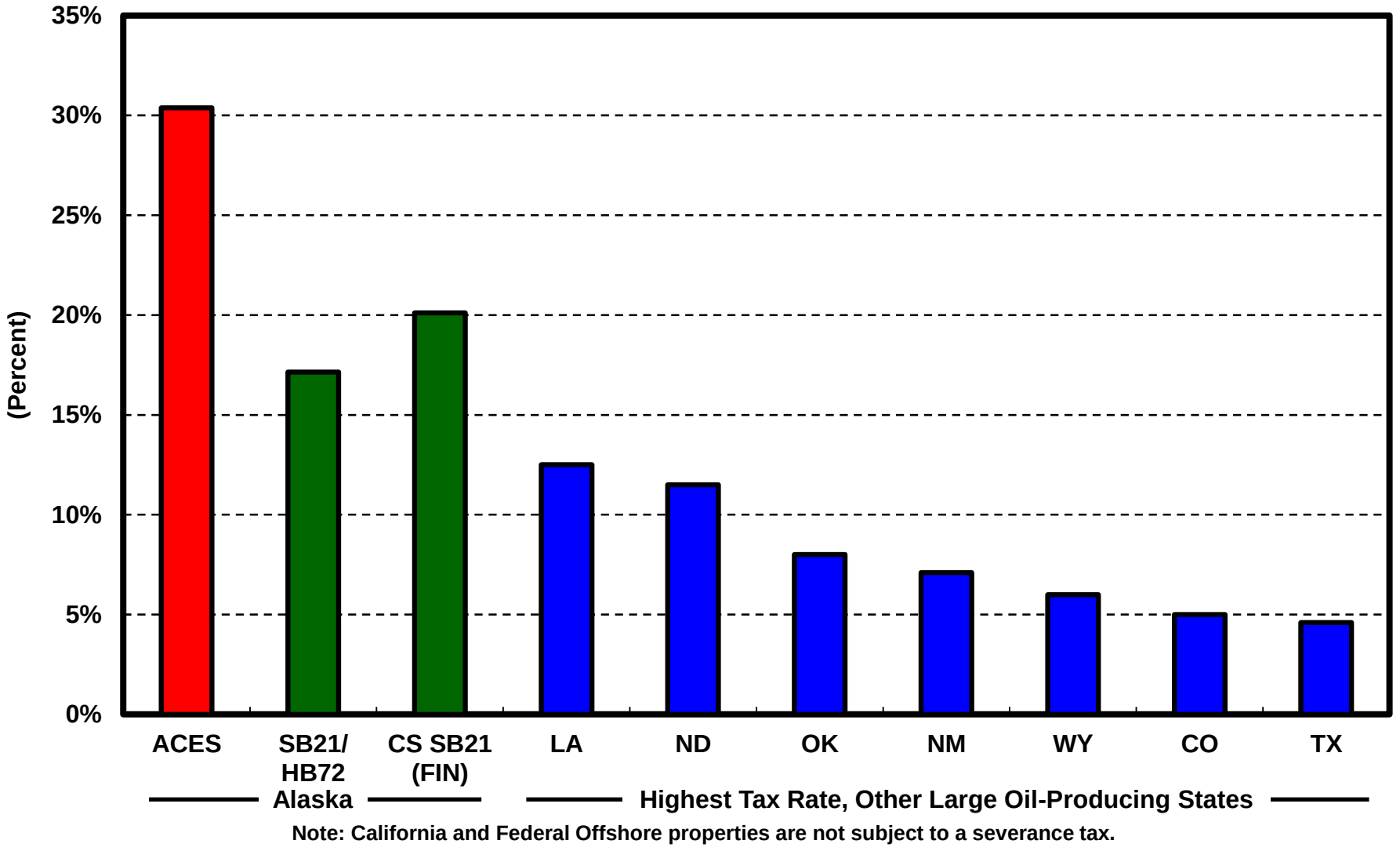
Comparison of Key Features of CS SB21 (FIN) With SB21/HB72

	SB21/HB72	CS SB21 (FIN)
Base Tax Rate	25%	35%
Credits	None	$5/Bbl
Monetization of NOLs	No	Yes
GRE		
Rate	20%	20%
Applicability	Post 2003 Units; Post 2012 PAs	Post 2003 Units; Post 2012 PAs; Certified New Oil From Existing Fields
Small Producer Credit Extended	Yes (2022)	No (2016)

Average Government Take and Effective Tax Rate ACES v. SB21/HB72 and CS SB21 (FIN) for All Existing Producers (FY2015-FY2019)



Effective Tax Rates on Gross Value for Legacy Production
ACES vs. SB21/HB72, CS SB21 (FIN) and Other Large Oil-Producing States
With Production Taxes at $100 Wellhead Value ($2012)



Note: California and Federal Offshore properties are not subject to a severance tax.

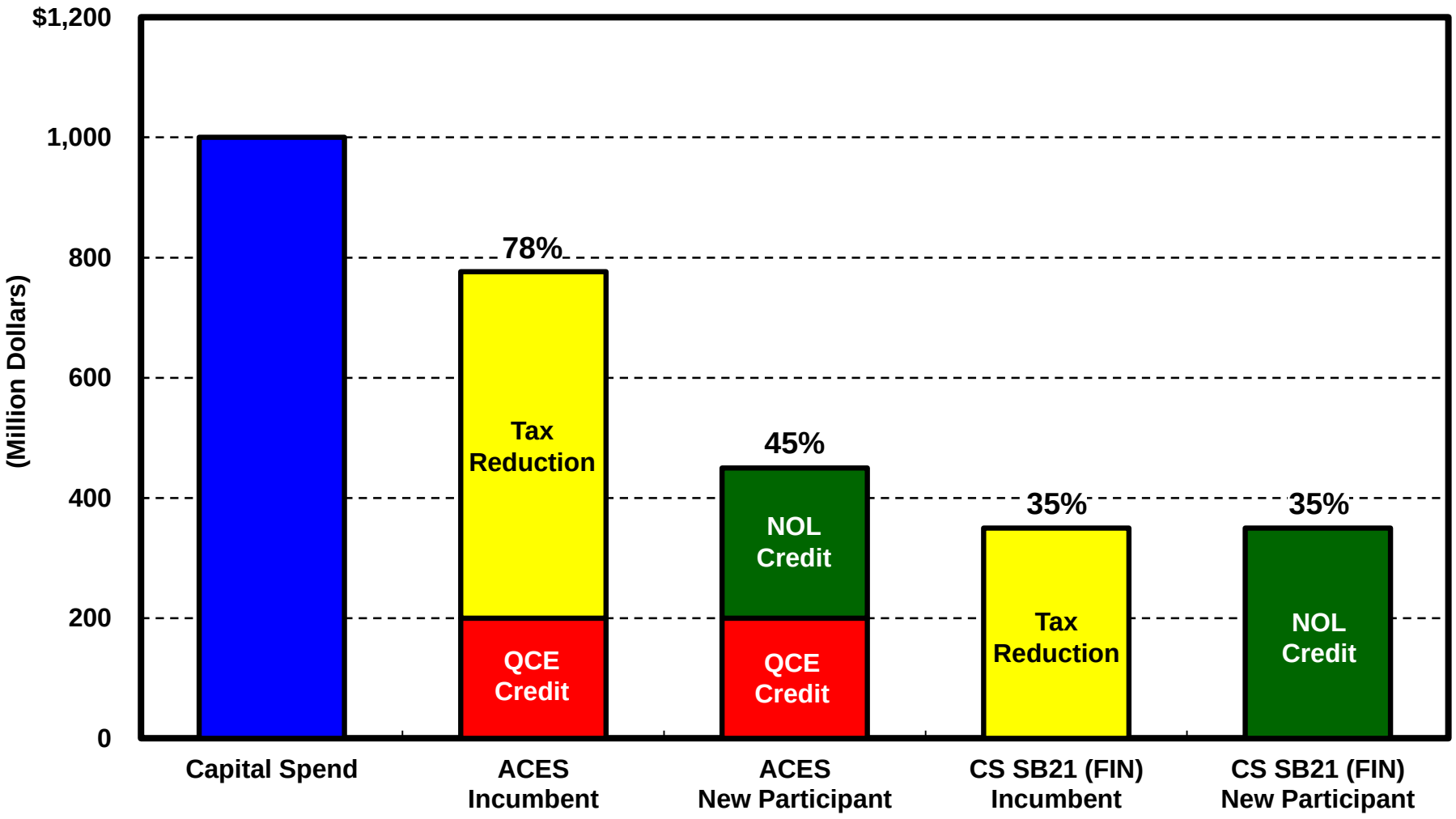
Calculation of Tax Under CS SB21 (FIN)
Production Not Qualifying for GRE

	$80 West Coast ANS	$100 West Coast ANS	$120 West Coast ANS
Gross Barrels	100,000	100,000	100,000
Royalty Barrels	- 12,500	- 12,500	- 12,500
Taxable Barrels	= 87,500	= 87,500	= 87,500
West Coast Value ($/Bbl)	$80.00	$100.00	$120.00
Transportation Costs ($/Bbl)	- 10.00	- 10.00	- 10.00
Wellhead Value ($/Bbl)	= $70.00	= $90.00	= $110.00
Lease Expenses ($/Bbl)	- 30.00	- 30.00	- 30.00
Taxable Value ($/Bbl)	= $40.00	= $60.00	= $80.00
Production Tax Value ($)	$3,500,000	$5,250,000	$7,000,000
Tax Rate (%)	35% $1,225,000	35% $1,837,500	35% $2,450,000
Production Credit ($/Bbl)	$5.00 - 437,500	$5.00 - 437,500	$5.00 - 437,500
Tax Due ($)	= $787,500	= $1,400,000	= $2,012,500
Tax as % of Net Value of Production	22.5%	26.7%	28.8%
Tax as % of Gross Value of Production	12.9%	17.8%	20.9%

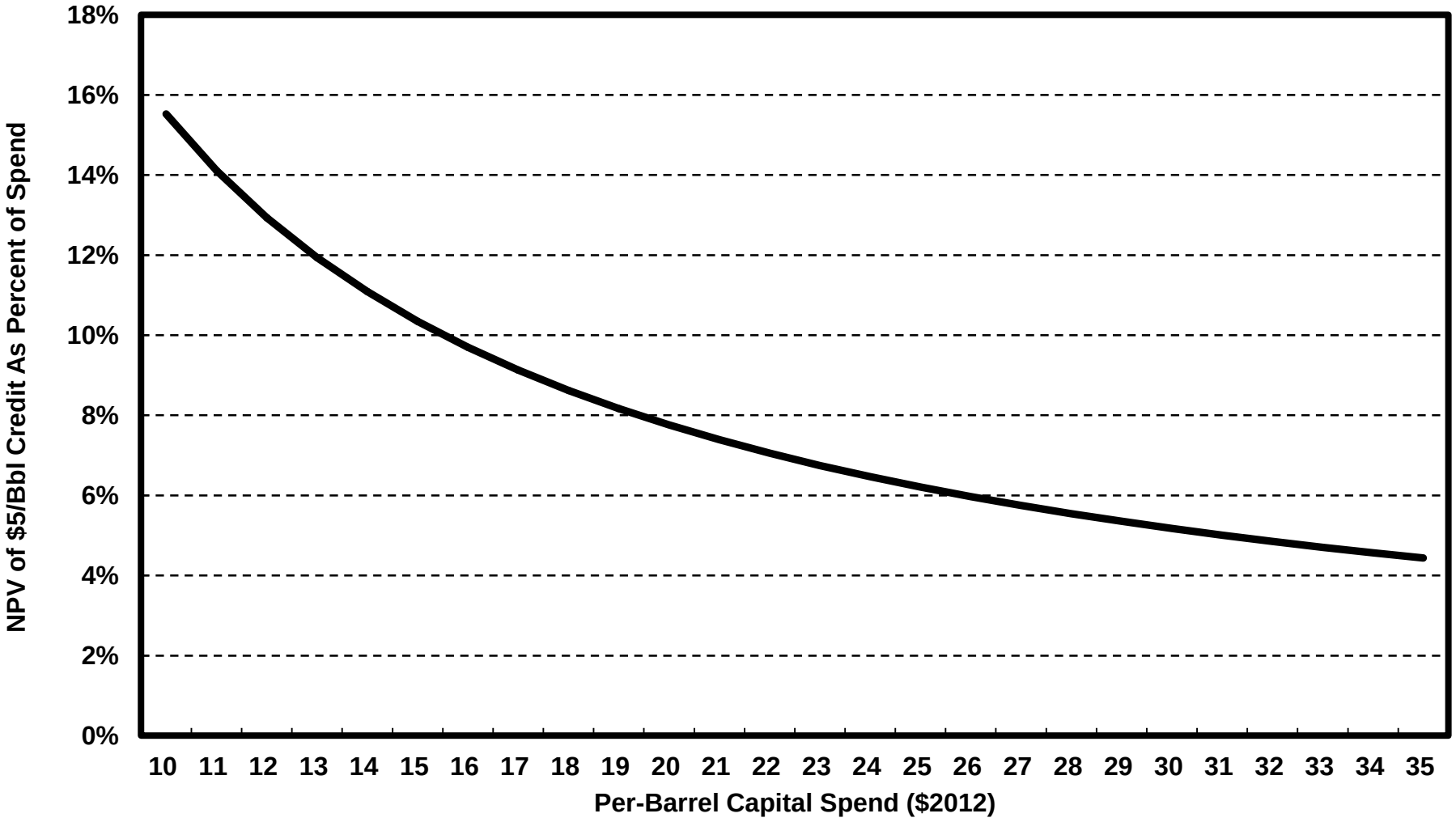
Calculation of Tax Under CS SB21 (FIN)
Production Qualifying for GRE

	$80 West Coast ANS	$100 West Coast ANS	$120 West Coast ANS
Gross Barrels	100,000	100,000	100,000
Royalty Barrels	- 12,500	- 12,500	- 12,500
Taxable Barrels	= 87,500	= 87,500	= 87,500
West Coast Value ($/Bbl)	$80.00	$100.00	$120.00
Transportation Costs ($/Bbl)	- 10.00	- 10.00	- 10.00
Wellhead Value ($/Bbl)	= $70.00	= $90.00	= $110.00
Gross Revenue Exclusion (%)	20% - 14.00	20% - 18.00	20% - 22.00
Lease Expenses ($/Bbl)	- 30.00	- 30.00	- 30.00
Taxable Value ($/Bbl)	= $26.00	= $42.00	= $58.00
Production Tax Value ($)	$2,275,000	$3,675,000	$5,075,000
Tax Rate (%)	35% $796,250	35% $1,286,250	35% $1,776,250
Production Credit ($/Bbl)	$5.00 - 437,500	$5.00 - 437,500	$5.00 - 437,500
Tax Due ($)	= $358,750	= $848,750	= $1,338,750
Tax as % of Net Value of Production	15.8%	23.1%	26.4%
Tax as % of Gross Value of Production	5.9%	10.8%	13.9%

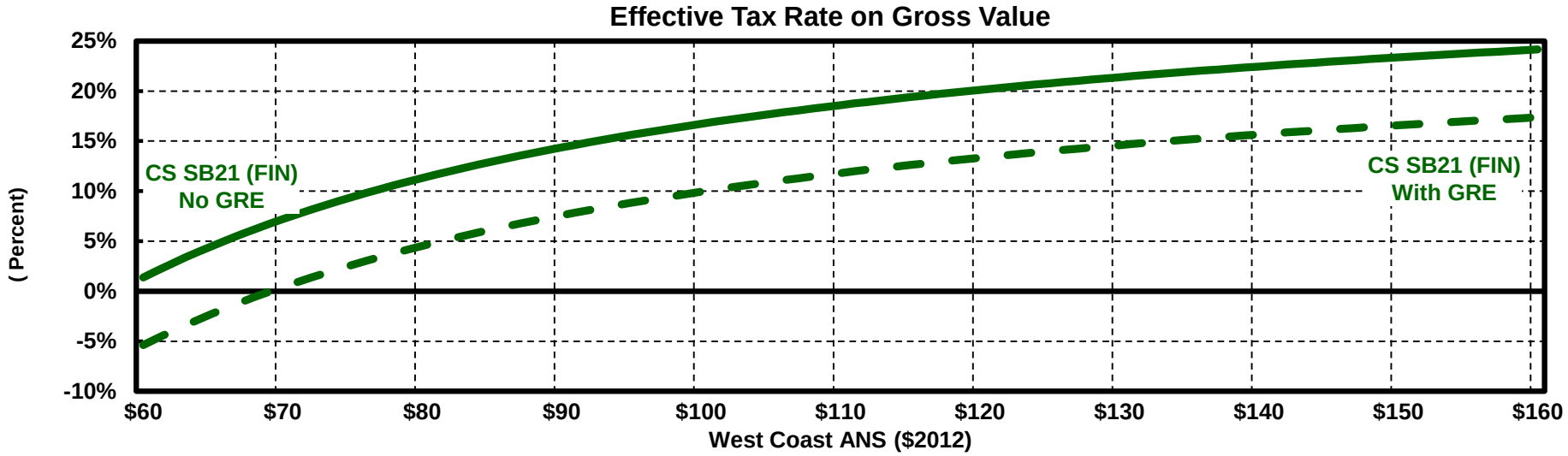
State Support for Capital Spending Under ACES and CS SB21 (FIN) at $100 West Coast ANS ($2012)

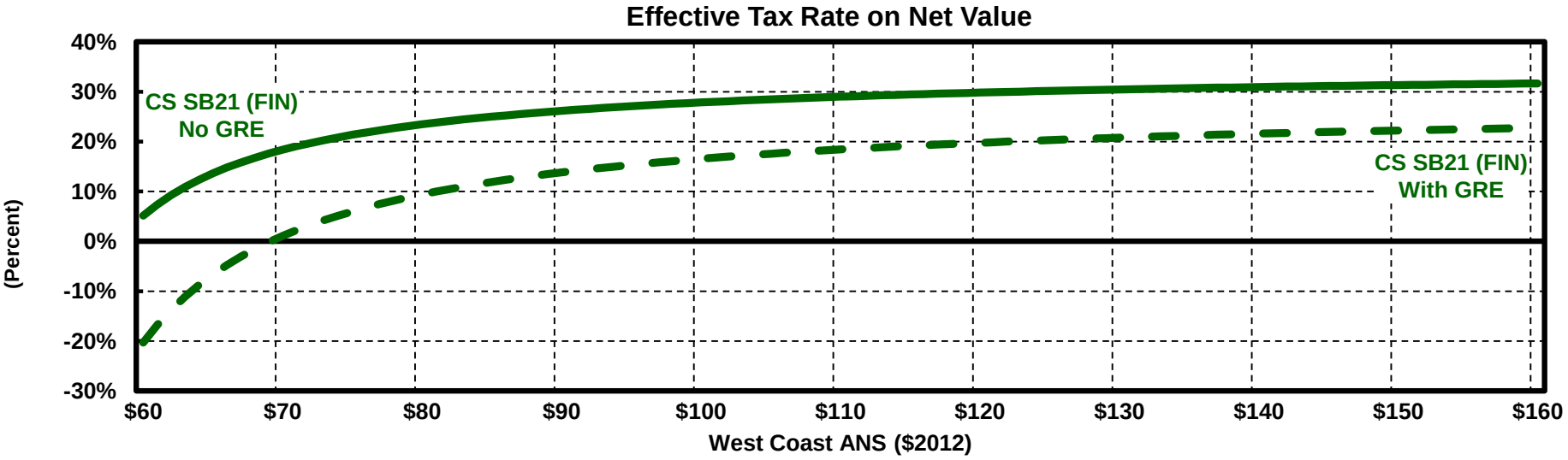


NPV Equivalence of $5/Bbl Production Credit As Percent of Capital Spend

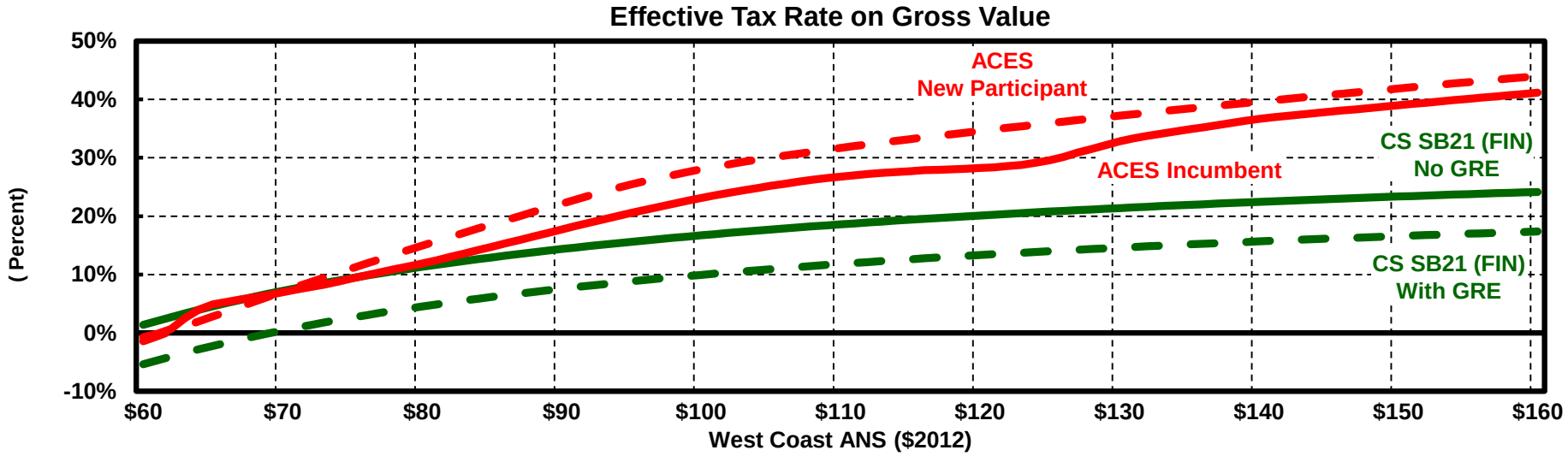


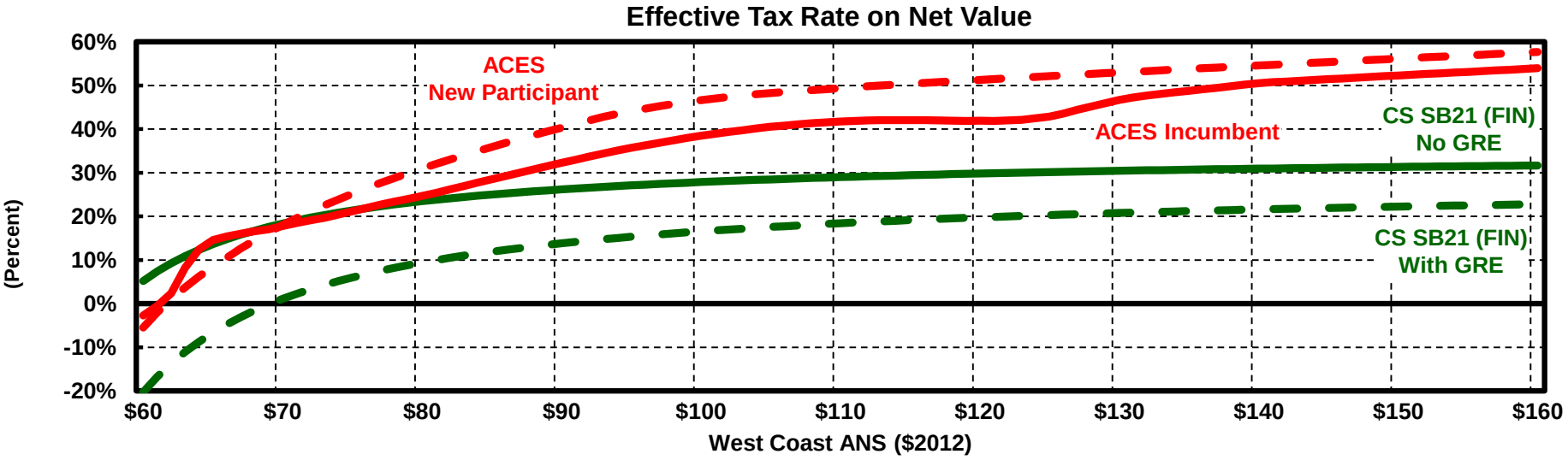
Effective Tax Rate on Gross and Net Value for New Participant Under CS SB21 (FIN): 20% GRE v. No GRE Mid-Range Cost 50 MMBO Alaska Oil Development





Effective Tax Rate on Gross and Net Value for New Participant Under ACES and CS SB21 (FIN) Mid-Range Cost 50 MMBO Alaska Oil Development





Summary of Investment Measures for New Participant Mid-Range Cost 50 MMBO Alaska Oil Development ACES and CS SB21 (FIN) v. Benchmark Areas

Real $2012 West Coast ANS Price	Alaska Project Qualifying for GRE				Unconventional Lower-48		Offshore	Canada Oil Sands	Norway	United Kingdom	
	12.5% Royalty Rate		16.67% Royalty Rate							Pre-1993 w/ Brownfield Allowance*	Post-1993 w/ Brownfield Allowance*
	ACES	CS SB21 (FIN)	ACES	CS SB21 (FIN)	Eagle Ford	Bakken	GOM	SAGD			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Producer NPV-12 / BOE (Dollars Per BOE)											
$80	$1.72	$2.65	$1.30	$2.07	$3.61	$0.67	$2.80	($0.93)	$0.24	$4.81	$4.62
$100	$3.09	$5.93	$2.61	$5.20	$6.75	$4.29	$6.22	$0.46	$2.34	$7.09	$8.25
$120	$4.80	$9.22	$4.23	$8.33	$11.17	$9.16	$9.64	$2.01	$4.44	$9.09	$11.88
Profitability Index-12											
$80	1.10	1.16	1.08	1.12	1.25	1.04	1.25	0.88	1.01	1.22	1.21
$100	1.19	1.36	1.16	1.31	1.47	1.28	1.55	1.06	1.14	1.33	1.38
$120	1.29	1.56	1.26	1.50	1.78	1.60	1.85	1.26	1.27	1.42	1.55
IRR (Percent)											
$80	16.3%	17.7%	15.3%	16.5%	29.9%	13.6%	18.3%	9.7%	12.4%	34.5%	24.7%
$100	19.5%	24.0%	18.4%	22.6%	46.3%	22.7%	24.3%	13.1%	16.0%	45.2%	32.9%
$120	23.3%	29.7%	22.0%	28.2%	73.6%	37.0%	29.3%	16.3%	19.3%	53.5%	40.2%
5-Year (2017-2021) Cash Margins (Dollars Per BOE)											
$80	$28.08	$33.33	$26.94	$31.72	$23.39	$28.39	$26.31	$26.07	$34.51	$22.94	$29.35
$100	$31.19	$42.44	$29.97	$40.40	$29.99	$36.48	$37.34	$29.14	$39.42	$28.85	$37.82
$120	$35.74	$51.54	$34.22	$49.07	$36.87	$44.91	$48.37	$33.37	$44.32	$31.29	$46.30
Government Take (Percent)											
$80	68.4%	58.6%	70.9%	62.1%	71.7%	77.1%	55.7%	63.4%	67.8%	61.0%	52.0%
$100	74.2%	59.7%	76.1%	62.6%	67.9%	72.1%	52.6%	63.5%	71.7%	68.6%	55.8%
$120	75.9%	60.2%	77.5%	62.9%	65.1%	68.7%	50.9%	63.0%	73.4%	72.0%	57.5%
State/Municipal NPV-12/BOE (Dollars Per BOE)											
$80	$4.43	$3.02	$5.08	$3.90	-	-	-	-	-	-	-
$100	$10.98	$6.60	$11.71	$7.73	-	-	-	-	-	-	-
$120	$17.00	$10.19	$17.87	$11.56	-	-	-	-	-	-	-

*** Brownfield Allowance applied to 100 MMBOE development.**
Cost Assumptions: $20/Bbl. Development Capex and $14/Bbl. Opex.

Summary of Investment Measures for Incumbent Mid-Range Cost 50 MMBO Alaska Oil Development ACES and CS SB21 (FIN) v. Benchmark Areas

Real $2012 West Coast ANS Price	Alaska Project Qualifying for GRE				Unconventional Lower-48		Offshore	Canada Oil Sands		United Kingdom	
	12.5% Royalty Rate		16.67% Royalty Rate							Pre-1993 w/ Brownfield Allowance*	Post-1993 w/ Brownfield Allowance*
	ACES	CS SB21 (FIN)	ACES	CS SB21 (FIN)	Eagle Ford	Bakken	GOM	SAGD	Norway		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Producer NPV-12 / BOE (Dollars Per BOE)											
$80	$3.17	$2.63	$2.73	$2.05	$3.61	$0.67	$2.80	($0.93)	$0.24	$4.81	$4.62
$100	$6.01	$5.92	$5.54	$5.18	$6.75	$4.29	$6.22	$0.46	$2.34	$7.09	$8.25
$120	$9.07	$9.20	$8.53	$8.31	$11.17	$9.16	$9.64	$2.01	$4.44	$9.09	$11.88
Profitability Index-12											
$80	1.19	1.16	1.16	1.12	1.25	1.04	1.25	0.88	1.01	1.22	1.21
$100	1.36	1.36	1.33	1.31	1.47	1.28	1.55	1.06	1.14	1.33	1.38
$120	1.55	1.56	1.51	1.50	1.78	1.60	1.85	1.26	1.27	1.42	1.55
IRR (Percent)											
$80	21.8%	17.6%	20.6%	16.5%	29.9%	13.6%	18.3%	9.7%	12.4%	34.5%	24.7%
$100	35.2%	23.9%	33.7%	22.6%	46.3%	22.7%	24.3%	13.1%	16.0%	45.2%	32.9%
$120	56.7%	29.7%	54.8%	28.2%	73.6%	37.0%	29.3%	16.3%	19.3%	53.5%	40.2%
5-Year (2017-2021) Cash Margins (Dollars Per BOE)											
$80	$26.56	$33.26	$25.35	$31.66	$23.39	$28.39	$26.31	$26.07	$34.51	$22.94	$29.35
$100	$29.63	$42.37	$28.35	$40.33	$29.99	$36.48	$37.34	$29.14	$39.42	$28.85	$37.82
$120	$33.80	$51.48	$32.27	$49.01	$36.87	$44.91	$48.37	$33.37	$44.32	$31.29	$46.30
Government Take (Percent)											
$80	65.6%	58.7%	68.1%	62.2%	71.7%	77.1%	55.7%	63.4%	67.8%	61.0%	52.0%
$100	70.3%	59.8%	72.1%	62.7%	67.9%	72.1%	52.6%	63.5%	71.7%	68.6%	55.8%
$120	71.2%	60.3%	72.8%	62.9%	65.1%	68.7%	50.9%	63.0%	73.4%	72.0%	57.5%
State/Municipal NPV-12/BOE (Dollars Per BOE)											
$80	$2.21	$3.04	$2.88	$3.93	-	-	-	-	-	-	-
$100	$6.49	$6.63	$7.20	$7.76	-	-	-	-	-	-	-
$120	$10.42	$10.21	$11.25	$11.58	-	-	-	-	-	-	-

Note: Analysis of incumbent production includes "buy-down" impact for reduced taxes on existing production.
*** Brownfield Allowance applied to 100 MMBOE development.**
Cost Assumptions: $20/Bbl. Development Capex and $14/Bbl. Opex.

Summary of Investment Measures for New Participant Lower Cost 50 MMBO Alaska Oil Development ACES and CS SB21 (FIN) v. Benchmark Areas

Real $2012 West Coast ANS Price	Alaska Project Qualifying for GRE				Unconventional Lower-48		Offshore	Canada Oil Sands	Norway	United Kingdom	
	12.5% Royalty Rate		16.67% Royalty Rate							Pre-1993 w/ Brownfield Allowance*	Post-1993 w/ Brownfield Allowance*
	ACES	CS SB21 (FIN)	ACES	CS SB21 (FIN)	Eagle Ford	Bakken	GOM	SAGD			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Producer NPV-12 / BOE (Dollars Per BOE)											
$80	$3.01	$4.13	$2.59	$3.55	$3.61	$0.67	$2.80	($0.93)	$0.24	$4.81	$4.62
$100	$4.37	$7.42	$3.89	$6.68	$6.75	$4.29	$6.22	$0.46	$2.34	$7.09	$8.25
$120	$6.08	$10.70	$5.51	$9.81	$11.17	$9.16	$9.64	$2.01	$4.44	$9.09	$11.88
Profitability Index-12											
$80	1.23	1.31	1.20	1.27	1.25	1.04	1.25	0.88	1.01	1.22	1.21
$100	1.33	1.56	1.29	1.50	1.47	1.28	1.55	1.06	1.14	1.33	1.38
$120	1.46	1.81	1.42	1.74	1.78	1.60	1.85	1.26	1.27	1.42	1.55
IRR (Percent)											
$80	21.0%	22.6%	19.8%	21.3%	29.9%	13.6%	18.3%	9.7%	12.4%	34.5%	24.7%
$100	24.8%	29.9%	23.5%	28.3%	46.3%	22.7%	24.3%	13.1%	16.0%	45.2%	32.9%
$120	29.2%	36.5%	27.7%	34.8%	73.6%	37.0%	29.3%	16.3%	19.3%	53.5%	40.2%
5-Year (2017-2021) Cash Margins (Dollars Per BOE)											
$80	$27.11	$32.37	$25.96	$30.76	$23.39	$28.39	$26.31	$26.07	$34.51	$22.94	$29.35
$100	$30.22	$41.48	$28.99	$39.44	$29.99	$36.48	$37.34	$29.14	$39.42	$28.85	$37.82
$120	$34.76	$50.59	$33.25	$48.11	$36.87	$44.91	$48.37	$33.37	$44.32	$31.29	$46.30
Government Take (Percent)											
$80	68.3%	58.7%	70.6%	62.0%	71.7%	77.1%	55.7%	63.4%	67.8%	61.0%	52.0%
$100	73.9%	59.7%	75.6%	62.5%	67.9%	72.1%	52.6%	63.5%	71.7%	68.6%	55.8%
$120	75.5%	60.3%	77.1%	62.8%	65.1%	68.7%	50.9%	63.0%	73.4%	72.0%	57.5%
State/Municipal NPV-12/BOE (Dollars Per BOE)											
$80	$5.96	$4.24	$6.61	$5.13	-	-	-	-	-	-	-
$100	$12.52	$7.83	$13.24	$8.96	-	-	-	-	-	-	-
$120	$18.52	$11.41	$19.40	$12.78	-	-	-	-	-	-	-

*** Brownfield Allowance applied to 100 MMBOE development.**
Cost Assumptions: $16/Bbl. Development Capex and $14/Bbl. Opex.

Summary of Investment Measures for Incumbent Lower Cost 50 MMBO Alaska Oil Development ACES and CS SB21 (FIN) v. Benchmark Areas

Real $2012 West Coast ANS Price	Alaska Project Qualifying for GRE				Unconventional Lower-48		Offshore	Canada Oil Sands		United Kingdom	
	12.5% Royalty Rate		16.67% Royalty Rate							Pre-1993 w/ Brownfield Allowance*	Post-1993 w/ Brownfield Allowance*
	ACES	CS SB21 (FIN)	ACES	CS SB21 (FIN)	Eagle Ford	Bakken	GOM	SAGD	Norway		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Producer NPV-12 / BOE (Dollars Per BOE)											
$80	$4.17	$4.11	$3.73	$3.53	$3.61	$0.67	$2.80	($0.93)	$0.24	$4.81	$4.62
$100	$6.64	$7.40	$6.17	$6.66	$6.75	$4.29	$6.22	$0.46	$2.34	$7.09	$8.25
$120	$9.37	$10.69	$8.82	$9.80	$11.17	$9.16	$9.64	$2.01	$4.44	$9.09	$11.88
Profitability Index-12											
$80	1.31	1.31	1.28	1.27	1.25	1.04	1.25	0.88	1.01	1.22	1.21
$100	1.50	1.56	1.47	1.50	1.47	1.28	1.55	1.06	1.14	1.33	1.38
$120	1.71	1.81	1.67	1.74	1.78	1.60	1.85	1.26	1.27	1.42	1.55
IRR (Percent)											
$80	27.7%	22.6%	26.2%	21.2%	29.9%	13.6%	18.3%	9.7%	12.4%	34.5%	24.7%
$100	42.9%	29.9%	41.1%	28.3%	46.3%	22.7%	24.3%	13.1%	16.0%	45.2%	32.9%
$120	67.2%	36.5%	64.8%	34.8%	73.6%	37.0%	29.3%	16.3%	19.3%	53.5%	40.2%
5-Year (2017-2021) Cash Margins (Dollars Per BOE)											
$80	$25.59	$32.31	$24.38	$30.70	$23.39	$28.39	$26.31	$26.07	$34.51	$22.94	$29.35
$100	$28.66	$41.41	$27.37	$39.37	$29.99	$36.48	$37.34	$29.14	$39.42	$28.85	$37.82
$120	$32.83	$50.52	$31.29	$48.05	$36.87	$44.91	$48.37	$33.37	$44.32	$31.29	$46.30
Government Take (Percent)											
$80	66.3%	58.8%	68.7%	62.1%	71.7%	77.1%	55.7%	63.4%	67.8%	61.0%	52.0%
$100	71.2%	59.8%	72.8%	62.6%	67.9%	72.1%	52.6%	63.5%	71.7%	68.6%	55.8%
$120	72.2%	60.3%	73.7%	62.8%	65.1%	68.7%	50.9%	63.0%	73.4%	72.0%	57.5%
State/Municipal NPV-12/BOE (Dollars Per BOE)											
$80	$4.18	$4.27	$4.85	$5.16	-	-	-	-	-	-	-
$100	$9.03	$7.85	$9.74	$8.98	-	-	-	-	-	-	-
$120	$13.47	$11.44	$14.31	$12.81	-	-	-	-	-	-	-

Note: Analysis of incumbent production includes "buy-down" impact for reduced taxes on existing production.
*** Brownfield Allowance applied to 100 MMBOE development.**
Cost Assumptions: $16/Bbl. Development Capex and $14/Bbl. Opex.

Summary of Investment Measures for New Participant Higher Cost 50 MMBO Alaska Oil Development ACES and CS SB21 (FIN) v. Benchmark Areas

Real $2012 West Coast ANS Price	Alaska Project Qualifying for GRE				Unconventional Lower-48		Offshore	Canada Oil Sands	Norway	United Kingdom	
	12.5% Royalty Rate		16.67% Royalty Rate							Pre-1993 w/ Brownfield Allowance*	Post-1993 w/ Brownfield Allowance*
	ACES	CS SB21 (FIN)	ACES	CS SB21 (FIN)	Eagle Ford	Bakken	GOM	SAGD			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Producer NPV-12 / BOE (Dollars Per BOE)											
$80	$0.11	$0.79	($0.31)	$0.22	$3.61	$0.67	$2.80	($0.93)	$0.24	$4.81	$4.62
$100	$1.49	$4.08	$1.01	$3.35	$6.75	$4.29	$6.22	$0.46	$2.34	$7.09	$8.25
$120	$3.19	$7.37	$2.62	$6.48	$11.17	$9.16	$9.64	$2.01	$4.44	$9.09	$11.88
Profitability Index-12											
$80	1.01	1.04	0.99	1.01	1.25	1.04	1.25	0.88	1.01	1.22	1.21
$100	1.07	1.20	1.05	1.16	1.47	1.28	1.55	1.06	1.14	1.33	1.38
$120	1.15	1.36	1.13	1.31	1.78	1.60	1.85	1.26	1.27	1.42	1.55
IRR (Percent)											
$80	12.2%	13.4%	11.4%	12.4%	29.9%	13.6%	18.3%	9.7%	12.4%	34.5%	24.7%
$100	15.0%	18.9%	14.1%	17.7%	46.3%	22.7%	24.3%	13.1%	16.0%	45.2%	32.9%
$120	18.2%	23.8%	17.2%	22.5%	73.6%	37.0%	29.3%	16.3%	19.3%	53.5%	40.2%
5-Year (2017-2021) Cash Margins (Dollars Per BOE)											
$80	$29.30	$34.53	$28.15	$32.92	$23.39	$28.39	$26.31	$26.07	$34.51	$22.94	$29.35
$100	$32.41	$43.63	$31.18	$41.59	$29.99	$36.48	$37.34	$29.14	$39.42	$28.85	$37.82
$120	$36.95	$52.74	$35.44	$50.27	$36.87	$44.91	$48.37	$33.37	$44.32	$31.29	$46.30
Government Take (Percent)											
$80	68.6%	58.4%	71.3%	62.3%	71.7%	77.1%	55.7%	63.4%	67.8%	61.0%	52.0%
$100	74.7%	59.6%	76.7%	62.8%	67.9%	72.1%	52.6%	63.5%	71.7%	68.6%	55.8%
$120	76.3%	60.2%	78.0%	63.0%	65.1%	68.7%	50.9%	63.0%	73.4%	72.0%	57.5%
State/Municipal NPV-12/BOE (Dollars Per BOE)											
$80	$2.53	$1.48	$3.18	$2.37	-	-	-	-	-	-	-
$100	$9.06	$5.07	$9.79	$6.20	-	-	-	-	-	-	-
$120	$15.09	$8.65	$15.96	$10.03	-	-	-	-	-	-	-

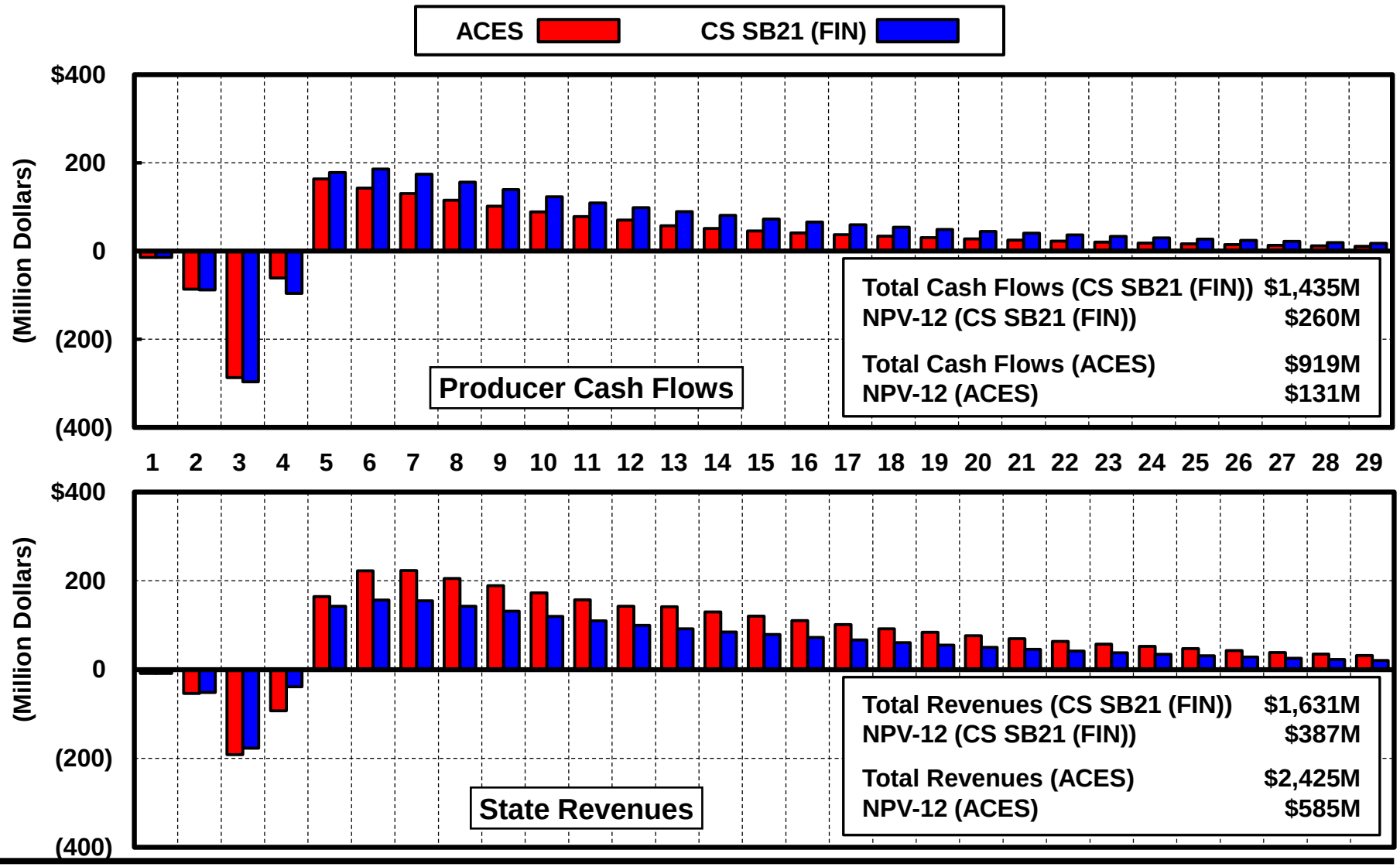
*** Brownfield Allowance applied to 100 MMBOE development.**
Cost Assumptions: $25/Bbl. Development Capex and $14/Bbl. Opex.

Summary of Investment Measures for Incumbent Higher Cost 50 MMBO Alaska Oil Development ACES and CS SB21 (FIN) v. Benchmark Areas

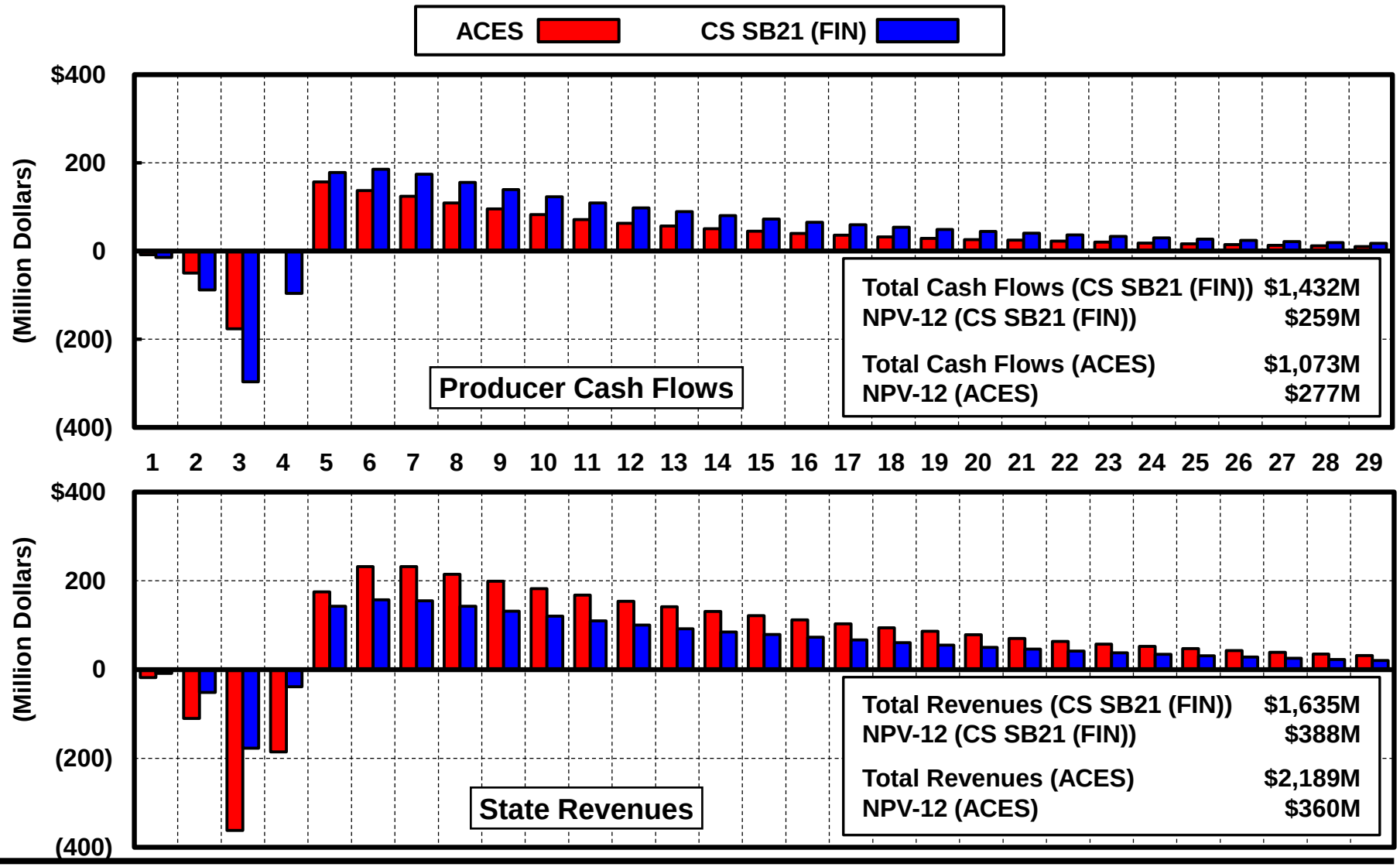
Real $2012 West Coast ANS Price	Alaska Project Qualifying for GRE				Unconventional Lower-48		Offshore	Canada Oil Sands		United Kingdom	
	12.5% Royalty Rate		16.67% Royalty Rate							Pre-1993 w/ Brownfield Allowance*	Post-1993 w/ Brownfield Allowance*
	ACES	CS SB21 (FIN)	ACES	CS SB21 (FIN)	Eagle Ford	Bakken	GOM	SAGD	Norway		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Producer NPV-12 / BOE (Dollars Per BOE)											
$80	$1.78	$0.78	$1.34	$0.20	$3.61	$0.67	$2.80	($0.93)	$0.24	$4.81	$4.62
$100	$5.16	$4.06	$4.70	$3.33	$6.75	$4.29	$6.22	$0.46	$2.34	$7.09	$8.25
$120	$8.65	$7.35	$8.11	$6.46	$11.17	$9.16	$9.64	$2.01	$4.44	$9.09	$11.88
Profitability Index-12											
$80	1.09	1.04	1.06	1.01	1.25	1.04	1.25	0.88	1.01	1.22	1.21
$100	1.25	1.20	1.23	1.16	1.47	1.28	1.55	1.06	1.14	1.33	1.38
$120	1.42	1.35	1.39	1.31	1.78	1.60	1.85	1.26	1.27	1.42	1.55
IRR (Percent)											
$80	16.5%	13.4%	15.4%	12.4%	29.9%	13.6%	18.3%	9.7%	12.4%	34.5%	24.7%
$100	28.5%	18.8%	27.2%	17.7%	46.3%	22.7%	24.3%	13.1%	16.0%	45.2%	32.9%
$120	47.5%	23.8%	45.8%	22.5%	73.6%	37.0%	29.3%	16.3%	19.3%	53.5%	40.2%
5-Year (2017-2021) Cash Margins (Dollars Per BOE)											
$80	$27.78	$34.46	$26.57	$32.86	$23.39	$28.39	$26.31	$26.07	$34.51	$22.94	$29.35
$100	$30.85	$43.57	$29.56	$41.53	$29.99	$36.48	$37.34	$29.14	$39.42	$28.85	$37.82
$120	$35.02	$52.68	$33.48	$50.20	$36.87	$44.91	$48.37	$33.37	$44.32	$31.29	$46.30
Government Take (Percent)											
$80	64.8%	58.5%	67.6%	62.4%	71.7%	77.1%	55.7%	63.4%	67.8%	61.0%	52.0%
$100	69.2%	59.7%	71.1%	62.8%	67.9%	72.1%	52.6%	63.5%	71.7%	68.6%	55.8%
$120	69.9%	60.3%	71.6%	63.1%	65.1%	68.7%	50.9%	63.0%	73.4%	72.0%	57.5%
State/Municipal NPV-12/BOE (Dollars Per BOE)											
$80	($0.03)	$1.51	$0.64	$2.40	-	-	-	-	-	-	-
$100	$3.41	$5.10	$4.12	$6.23	-	-	-	-	-	-	-
$120	$6.69	$8.68	$7.51	$10.05	-	-	-	-	-	-	-

Note: Analysis of incumbent production includes "buy-down" impact for reduced taxes on existing production.
*** Brownfield Allowance applied to 100 MMBOE development.**
Cost Assumptions: $25/Bbl. Development Capex and $14/Bbl. Opex.

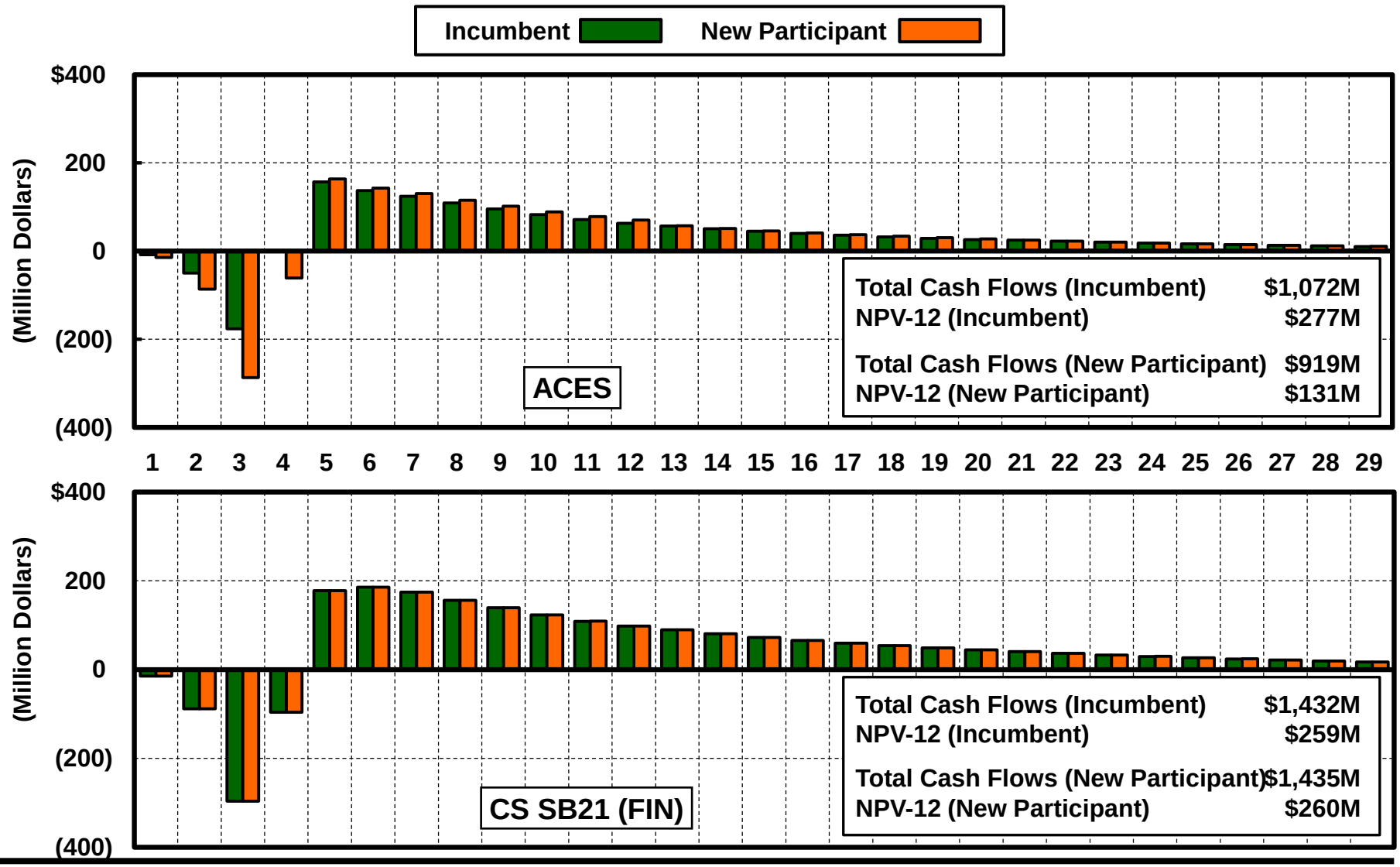
Annual State Revenues and Producer Cash Flows at $100 West Coast ANS ($2012)
Mid-Range Cost 50 MMBO Alaska Oil Development
New Participant in Alaska



Annual State Revenues and Producer Cash Flows at $100 West Coast ANS ($2012)
Mid-Range Cost 50 MMBO Alaska Oil Development
Incumbent Participant in Alaska



Annual Producer Cash Flows at $100 West Coast ANS ($2012)
Mid-Range Cost 50 MMBO Alaska Oil Development



Additional Volumes Need to Offset Projected Fiscal Impact of CS SB21 (FIN) (FY2014 - FY2043)

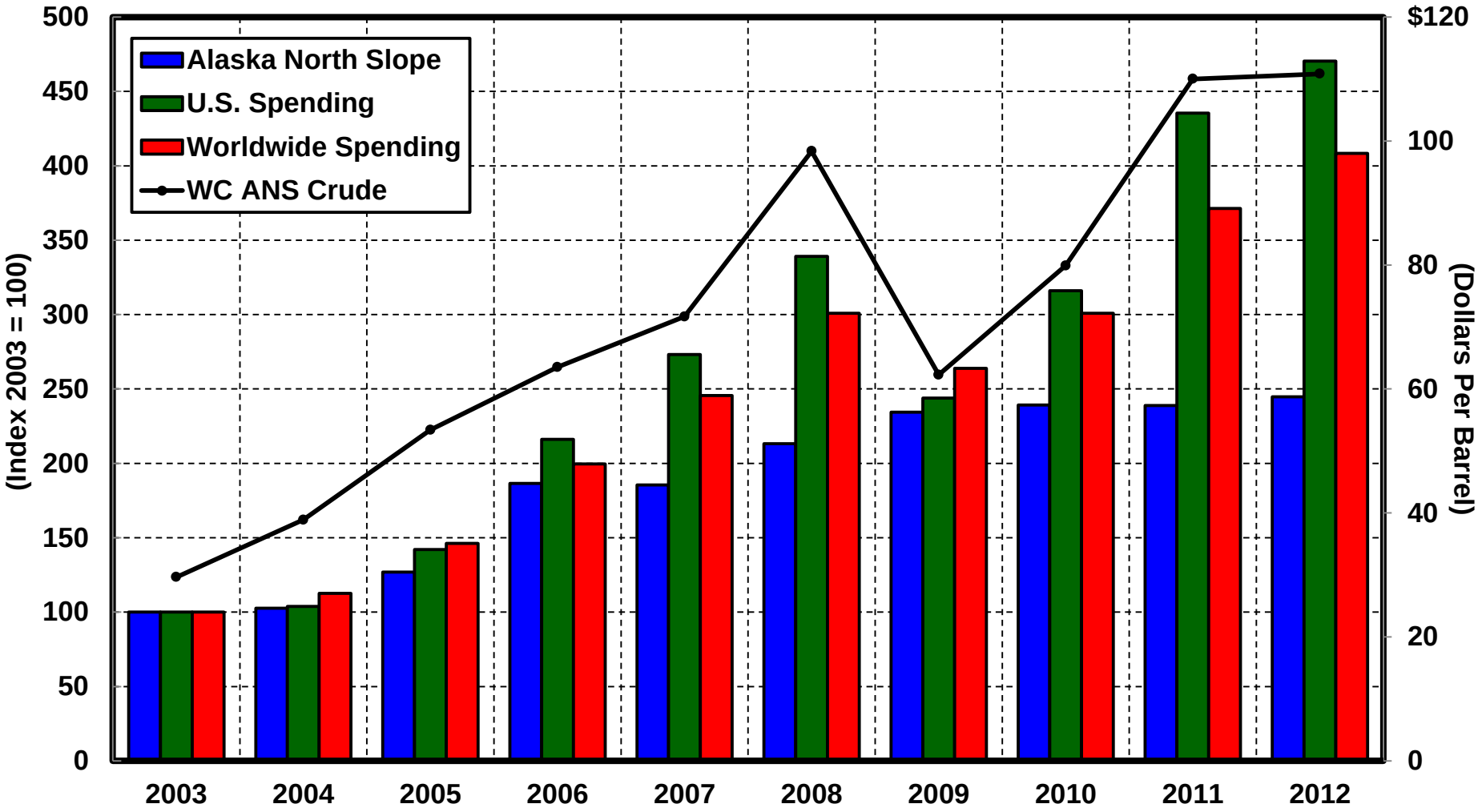
Assumptions: $20/Bbl Development Cost
Price = $105/Bbl West Coast ANS Price ($2012)
Taxes Per Senate Finance CS SB21: 35% Base Rate, $5/Bbl Credit, 20% GRE

	16.67% Royalty	12.5% Royalty
State Revenue Per Barrel Developed (No Tariff Impact)		
Nominal Dollars	$35.50	$32.00
2012 Dollars	$25.75	$23.00
Additional State Revenue From Tariff Reduction ($2012)	$3.50	$3.50
30-Year Breakeven		
Nominal Dollars	$17,200	$17,200
2012 Dollars	$12,900	$12,900
Total Barrels Needed to Develop (MMBO)	441	487
Annual Barrels Needed (MMBO)	15	16
Daily Barrels Needed (BPD)	40,000	44,000
Central North Slope Undiscovered Conventional Economically Recoverable Resources	3,000	3,000
% of Resources Required Annually	0.5%	0.5%

Testing Reasonableness of Achieving Breakeven Development Capital Required ($2012)

Annual Development Required (Barrels)		15,000,000
$/Bbl Development Costs	x	$20
Annual Capital Required (Dollars)	=	$300,000,000
2012 Capital Spending (Dollars)		$2,400,000,000
Additional Capital Required as Percent of 2012 Spending Level		12.5%

Estimated Capital Spending for Exploration and Development
Alaska North Slope vs. U.S. and Worldwide Spending*
2003 - 2012



* North Slope based on tax return information; U.S. based on top 50 public companies; worldwide based on top 75 public companies

Testing Reasonableness of Achieving Breakeven Development Capital Spending Increase at Worldwide Pace

Worldwide Capital Spending Growth 2003-2012 (Percent)		400%
Alaska Capital Spending in 2003 (Dollars)		$1,000,000,000
Alaska Capital Spending in 2012 with Growth at Worldwide Pace (Dollars)		$4,000,000,000
Actual 2012 Capital Spending (Dollars)	-	2,400,000,000
Worldwide Pace vs Actual (Dollars)	=	$1,600,000,000
Percentage Over Actual 2012 Spending (Percent)		67%
Potential Development @ $20/Bbl (Barrels)		80,000,000
Breakeven Volume (Barrels)		15,000,000
Difference (Barrels)		65,000,000

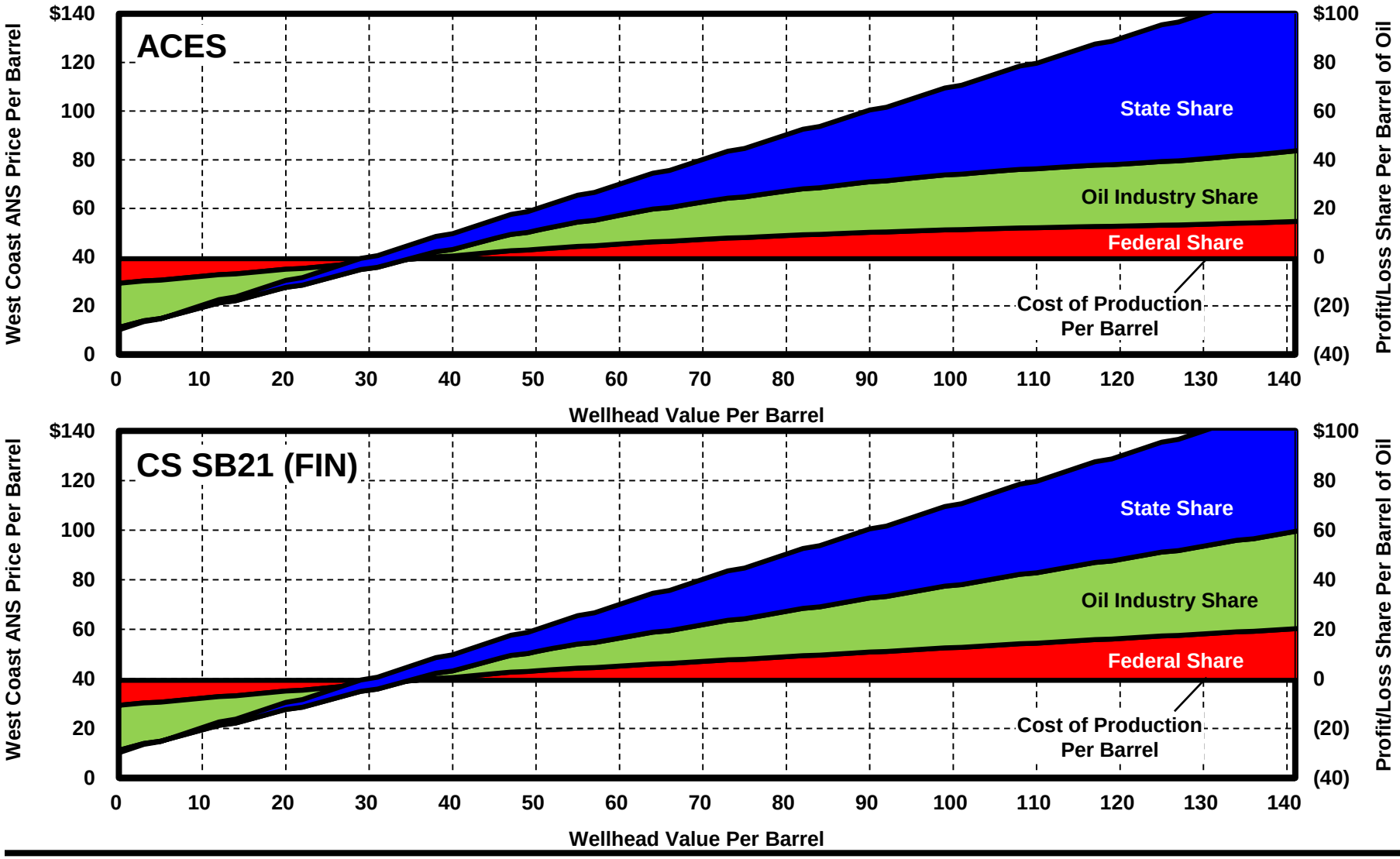
Testing Reasonableness of Achieving Breakeven Development
Gerking, et al. Study of Sensitivity of Drilling to Tax Rates

Drilling Change Due to Reduction in Gross Severance Tax By 5.3 Percentage Points (From 10.6% to 5.3%)		23.0%
Change Per 1% Change in Severance Tax Rate		4.3%
Change in Alaska Tax Rate (Gross Equivalent) (10 Percentage Points)	x	10%
Implied Impact on Drilling Starts (Percent)	=	43.4%
2012 Well Starts in Alaska with Production	x	60
Implied Increase in Drilling Starts	=	26
Expected First Year Recovery (Barrels) (Assumes 80% in-field wells with initial production of 1,000 b/d; 20% new field drilling with initial produciton of 2,000 b/d)		11,388,000
Total Expected Recovery (Barrels) (Assumes 15% Annual Decline)		72,800,000
Breakeven Volume (Barrels)	-	15,000,000
Amount Over Beakeven (Barrels)	=	57,800,000

Testing Reasonableness of Achieving Breakeven Development Gerking, et al. Study of Sensitivity of Drilling to Tax Rates Limited Impact Sensitivity

Drilling Change Due to Reduction in Gross Severance Tax By 5 Percentage Points (From 10.6% to 5.3%)		23.0%
Change Per 1% Change in Severance Tax Rate		4.3%
Change in Alaska Tax Rate (Gross Equivalent) (10 Percentage Points)	x	10%
Implied Impact on Drilling Starts (Percent)	=	43.4%
50% of Implied Drilling Starts (Percent)		21.7%
2012 Well Starts in Alaska with Production	x	60
Implied Increase in Drilling Starts	=	13
Expected First Year Recovery (Barrels) (Assumes 80% in-field wells with initial production of 1,000 b/d; 20% new field drilling with initial produciton of 2,000 b/d)		5,694,000
Total Expected Recovery (Barrels) (Assumes 15% Annual Decline)		36,400,000
Breakeven Volume (Barrels)	-	15,000,000
Amount Over Beakeven (Barrels)	=	21,400,000

Shares of Per-Barrel Values Under ACES and CS SB21 (FIN) for All Producers (FY 2015 - FY 2019)



State, Federal and Producer Take at Various $2012 WC ANS Prices for All Producers (FY 2015 - FY 2019)
ACES and CS SB21 (FIN)