Historical and Current State Revenue Loss Quantified

Difference Between RCA's 2002 TAPS Tariff Order And State's 1985 Pipeline Tariff Agreement Costs State More Than $400 per Minute

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A Report to the *Alaska Budget Report*
by
Richard A. Fineberg *

February 28, 2007

Executive Summary

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The estimated present and historical state revenue losses reported here are based on comparison between the tariffs the TAPS owners charge for shipping oil on the 800-mile pipeline that connects Prudhoe Bay with Valdez and the much lower TAPS tariffs ordered since 2002 by the Regulatory Commission of Alaska (RCA), a quasi-independent state agency whose duties include regulation of in-state pipeline tariffs.

Experience demonstrates that the retroactive charges on both tariff refunds to shippers and the resulting royalty and production tax refunds to the state grow increasingly difficult to collect as time passes. Unless TAPS tariff overcharges are corrected in a timely manner, a major portion of the tax incentives offered at state expense will continue to be transferred directly into the hands of the TAPS owners, vitiating the intended benefits of those tax incentives.

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I. Introduction

The state loses more than $400 in revenue every minute due to excessive charges on the Trans-Alaska Pipeline System (TAPS), according to an analysis of current TAPS shipping charges, or tariffs. The state's ongoing TAPS revenue hemorrhage – now in its 31st year – totals more than $3.0 billion (approximately $4.5 billion in today's dollars).

The estimated present and historical state revenue losses reported here are based on analysis of the tariffs the TAPS owners charge for shipping oil on the 800-mile pipeline that connects Prudhoe Bay with Valdez and the much lower TAPS tariffs ordered since 2002 by the Regulatory Commission of Alaska (RCA), a quasi-independent state agency whose duties include regulation of in-state pipeline tariffs.[1]

In ordering lower tariffs, the RCA essentially repudiated the TAPS Settlement Methodology (TSM), an agreement forged in1985 between the state, represented by the Department of Law, and the TAPS owners. In the absence of opposition from shippers at that time and in hopes of ending protracted litigation over TAPS tariffs, the RCA and the Federal Energy Regulatory Commission (FERC) both adopted the TSM, a complex and controversial framework for determining a ceiling on annual TAPS tariffs. Despite the RCA's 2002 order rejecting TSM after a five-year hearing and a subsequent challenge to the 1985 tariff framework at FERC, the TAPS owners continue to use TSM today.

Calculations displayed in Appendix Worksheets 1 through 9 indicate that state losses resulting from the delay in correcting excessive TAPS tariffs will add up to approximately $213 million in 2007. To put this amount into perspective:

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[1] Due to the constraints on public information (imposed, among other factors, by the terms of the 1985 settlement), precise estimates of the amount lost to TAPS overcharges is beyond the scope of this report. To avoid overstating the impacts of excessive tariffs on both historical and current calculations, conservative estimating factors were used in this analysis. Moreover, it should be noted that these estimates do not include the gains to the TAPS owners from the fact that the 1985 settlement allows the TAPS owners to hold, rather than place in escrow, funs pre-collected for the eventual dismantling and removal of TAPS facilities and restoration of the pipeline right-of-way (DR&R).

$213 million, which equates to a loss of more than $404 per minute, would fund the governor's proposed unspecified operating budget cuts ($150 million), plus more than $60 million in proposed supplemental bills for the following items:

- Alaska Marine Highway operations ($21 million);
- disaster relief ($18 million);
- Department of Corrections ($13 million); and
- Department of Law cost overruns on gas pipeline negotiations ($8.5 million).[2]

Three transnational oil companies – British Petroleum, ConocoPhillips and ExxonMobil – own more than 95 percent of TAPS and control a similar share of North Slope production.[3] For this reason, a large portion of TAPS tariff overcharges are internal company transfer payments; from a company cash-flow standpoint, these excess tariffs are a matter of paperwork; they aren't real. But the resulting losses to the state are. Transportation charges are subtracted from the price of oil to determine the basis for royalty and production tax payments to the state.[4] For this reason, the state currently loses more than twenty cents on every dollar charged for pipeline shipping.[5]

Assuring that tariffs are "just and reasonable" – RCA's mandate under AS 42.06 – is important for another reason: Unlike the TAPS owners, who simply transfer the most overcharges from their production unit to their pipeline subsidiary, independent producers or shippers must pay those charges out of pocket. Consequently, TAPS overcharges can put a serious damper on North Slope development. This chill is particularly important because the state is offering inducements to independent companies in hopes that they will explore for the yet-undiscovered natural gas necessary to assure the economic viability of a natural gas pipeline from Prudhoe Bay to the Lower-48.

A simplified annual reckoning of historical state losses due to TAPS tariff overcharges is presented in Figure 1.

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[2] State supplemental budget figures taken from: Anne Sutton (Associated Press), " Palin seeks to add funds to current budget –$144 MILLION: Gas line plans and school rebuilding fed a supplemental request," *Anchorage Daily News*, Feb. 15, 2007.

[3] For TAPS and North Slope production ownership percentages, see Worksheet 2.

[4] For brief discussion and description of TAPS tariffs, see: Richard A. Fineberg, *The Profitability and Economic Viability of Alaska North Slope and Associated Pipeline Operations*, Prince William Sound Regional Citizens' Advisory Council (April 27, 2005), pp. 35-42; and *The Emperor's New Hose: How Big Oil Gets Rich Gambling with Alaska's Environment*, Alaska Forum for Environmental Responsibility (June 2002), Ch. 5.

[5] See Worksheet 4 for the estimating factors adopted for this analysis. Note: In its 1978 ruling that the state would be entitled to collect refunds in the event of TAPS overcharges, the U.S. Supreme Court cited the state's claim that every dollar in tariff excess charges would reduce state revenue by $0.23. (*Trans Alaska Pipeline Rate Cases (Mobil Alaska Pipeline Company, et al. v. United States, et al.*,1978 (436 US 631 [56 L Ed 2d 591]), fn. 6).

Figure 1

Estimated State Revenue Losses Under TAPS Settlement Methodology, 1977 - 2007

(1) Year	(2) GDP Implicit Price Deflator (Index)	(3) Inflation (%)	(4) Alaska North Slope Production (Million barrels)	(5) Estimated State Revenue Loss Due to TSM TAPS Tariff Excess over RCA 2002 Decision and Order ($ Millions)	(6)
				(Nominal $)	(2007 $)
1977	42.3300	4.2%	96.909	$16.81	$47.22
1978	45.1800	6.7%	394.990	$68.51	$180.33
1979	48.8200	8.1%	465.532	$80.75	$196.69
1980	53.1000	8.8%	550.695	$95.52	$213.92
1981	58.3000	9.8%	549.108	$95.24	$194.28
1982	62.2900	6.8%	585.878	$101.62	$194.01
1983	65.0400	4.4%	594.481	$103.11	$188.53
1984	67.4400	3.7%	599.897	$104.05	$183.48
1985	69.9300	3.7%	648.118	$112.42	$191.17
1986	71.2500	1.9%	658.918	$114.29	$190.76
1987	73.1100	2.6%	709.333	$123.03	$200.13
1988	75.4100	3.1%	745.015	$129.22	$203.78
1989	78.3400	3.9%	677.393	$117.49	$178.36
1990	81.2500	3.7%	641.937	$111.34	$162.97
1991	84.3000	3.8%	654.257	$113.48	$160.08
1992	86.4200	2.5%	630.514	$109.36	$150.49
1993	88.3800	2.3%	579.887	$100.58	$135.34
1994	90.2800	2.1%	568.990	$98.69	$130.00
1995	92.1800	2.1%	547.080	$94.89	$122.42
1996	93.9500	1.9%	516.461	$89.58	$113.39
1997	95.5900	1.7%	492.800	$75.10	$93.43
1998	96.7500	1.2%	448.500	$55.67	$68.42
1999	98.0200	1.3%	405.200	$61.62	$74.76
2000	100.0000	2.0%	371.100	$65.31	$77.67
2001	102.3600	2.4%	362.800	$79.10	$91.90
2002	104.3200	1.9%	369.700	$99.12	$112.99
2003	106.4300	2.0%	362.700	$92.82	$103.71
2004	109.1800	2.6%	343.000	$78.89	$85.93
2005	112.5100	3.1%	323.755	$113.96	$120.45
2006	115.9800	3.1%	292.456	$139.21	$142.74
2007	118.9200	2.5%	276.488	$212.90	$212.90
			Total State Loss: (Million $)	**$3,053.70** (Nominal $)	**$4,522.23** (2007 $)

Notes

These data, which reflect simplified assumptions and methods for analyzing publicly available information, should be regarded as preliminary estimates. The author believes the conservative estimating factors used here are likely to understate actual state losses.

In its 2002 decision and order requiring TAPS owners to reduce intrastate TAPS tariffs (shipping charges) for the 1997-2000 period, the Regulatory Commission of Alaska (RCA) reported that between1977 and 1996 TAPS owners overcharged shippers by $9.9 billion[1]. Because four companies own almost 96% of TAPS and a similar share of the oil they transport, much of this sum represented internal transfer payments. But transportation charges are also subtracted from the state tax and royalty base. For this reason, excess tariffs on TAPS have cost the state more than $3 billion since 1977 (more than $4.5 billion in 2007 $), as shown in Columns (5) and (6) of this figure[2].

1977 - 1996: To estimate state revenue lost during this period, $9.9 billion is divided into 20 equal shares of $99 million per year, then pro-rated to reflect that year's share of total production. For example, 1977 North Slope production of 96.909 million barrels (shown in Col. [4]) was 16.978 percent of the 20-year average (570.77 million barrels). Therefore, the state's loss for this period is conservatively estimated in Col. (5) at $16.808 million.[3] To convert this loss to current dollars, the GDP Implicit Price Deflator, shown in Col. (2), is used[4]; results are shown in Col. (6).

1997 - 2005: For the 1997-2005 period, the 20 percent factor is applied to total TAPS throughput, then multiplied by the per-barrel difference between the tariff that the RCA has determined to be just and reasonable ($1.96 per barrel) and the weighted average TSM tariffs for each year[5].

2006 - 2007: The first three months of 2006 are calculated using the method described above; the final nine months of 2006 are estimated using the method spelled out for 2007 in Worksheets 1 through 9 at the back of this report. Under the Petroleum Profits Tax (PPT), the combined royalty and production tax share is estimated to increase to 25.6% of tariff charges.

(See notes on following page.)

Figure 1 Estimated State Revenue Losses Under TAPS Settlement Methodology, 1977 - 2007

Notes:

1. Regulatory Commission of Alaska, *Order Rejecting 1997, 1998, 1999 and 2000 Filed TAPS Rates; Setting Just and Reasonable Rates; Requiring Refunds and Filings; and Outlining Phase II Issues* (Order P-97-4[151] / P-97-7[110]), Nov. 26, 2002, p. 8.

2. In its 1978 ruling that the state would be entitled to collect refunds in the event of TAPS overcharges, the U.S. Supreme Court cited the state's claim that every dollar in tariff excess charges would reduce state revenue by $0.23. (*Trans Alaska Pipeline Rate Cases (Mobil Alaska Pipeline Company, et al. v. United States, et al.*,1978 (436 US 631 [56 L Ed 2d 591]), fn. 6).

3. $9.9 billion / 20 years = $495,000,000 per year; $495,000,000 * 0.20 = $99,000,000 (annual share before prorating). $99,000,000 * 96.909 / 570.770 = $16.808 million (estimated state loss for 1977).

4. U.S. Office of Management and Budget, *The Budget for Fiscal Year 2008, Historical Tables,* "Gross Domestic Product and Deflators Used in the Historical Tables: 1940-2012" (February 2007), pp. 192-193.

5. Throughput and tariff estimates were drawn from Alaska Department of Revenue reports and published tariff data. To calculate 1997-2007 overcharges, the Regulatory Commission of Alaska line-wide tariff of $1.96 per barrel was subtracted from the following estimated annual weighted average TAPS tariffs:

Year	Estimated TAPS Tariff
1997	$2.72 / bbl.
1998	$2.58 / bbl.
1999	$2.72 / bbl.
2000	$2.84 / bbl.
2001	$3.05 / bbl.
2002	$3.30 / bbl.
2003	$3.24 / bbl.
2004	$3.11 / bbl.
2005	$3.72 / bbl.
2006	$3.98 / bbl.
2007	$5.10 / bbl.

It should be noted that variations between actual shipping rates for a given year and published tariff data can result from factors such as the following: Adjustments in the reported tariff to provide increased (or decreased) shipping revenue collections to account for prior-year shortfall or excess collections resulting from factors such as the variances between filed tariff (forecast) throughput and actual shipments; reported tariffs do not reveal factors such as revisions during the year or discounts; data necessary to account for oil removed from the line prior to Valdez (such as North Pole shipments) may not be readily available.

(Research Associates, February 2007)

II. Background

The RCA complaint against the TAPS owners was brought by Tesoro Alaska Petroleum Company in 1997. Tesoro, which refines and markets oil on the West Coast and in Alaska but does not have an ownership stake in North Slope fields or in TAPS, was joined by the Williams Alaska Petroleum Company, which then operated the North Pole refinery, and the commission's Public Advocacy Section. The state sided with the TAPS owners in urging the RCA to reject the shippers' complaint that they were unjustly penalized by excessive tariffs under TSM. During the proceeding the state argued, among other things, that the TSM produced equitable results and provided ratemaking stability.

The RCA's November 2002 tariff ruling ordered the TAPS owners to reduce TAPS tariffs to $1.96 and pay refunds to the shippers on all overcharges since 1997. The lower rate, the commission held, would provide the TAPS owners sufficient revenue to pay all expenses and earn a reasonable profit on their pipeline expenditures. The 168-page decision and order – which was backed by more than 300 pages of endnotes supporting exhibits that summarized more than 75,000 pages of documents generated during the five-year proceeding – also found that between 1977 and 1996 the TAPS owners had collected $9.9 billion too much in TAPS tariffs. But the commission determined that the earlier overcharges were not subject to refund.[6]

While they ask the courts to reverse the RCA's 2002 order, the TAPS owners continue to raise the tariff in annual filings. The latest TAPS rate hike raises TAPS tariff charged by the owners to $5.10 per barrel at FERC, compared to a TSM tariff $2.72 per barrel in 1997, when the case began.[7] Since 2002, the RCA has upheld its initial tariff and consistently rejected the TAPS owners' tariff increases.[8] But experience demonstrates that the retroactive payments to both tariff refunds to shippers and the resulting royalty and production tax refunds to the state grow increasingly difficult to collect as time passes.

In January 2006 the state Superior Court issued a strongly worded decision upholding the RCA's order "in all respects," rejecting the TAPS owners' challenge to the commission's orders. The TAPS owners and the RCA's

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[6] Regulatory Commission of Alaska, *Order Rejecting 1997, 1998, 1999 and 2000 Filed TAPS Rates; Setting Just and Reasonable Rates; Requiring Refunds and Filings; and Outlining Phase II Issues* (Docket Nos. P-97-4 and P-97-7, Order P-97-4[151] / P-97-7[110]), Nov. 26, 2002.

[7] Estimated annual TAPS tariffs for 1997 through 2007 are shown at footnote 5 of Figure 1, above.

[8] See, for example: Regulatory Commission of Alaska, *Order Rejecting The TAPS Carriers' 2001-2003 TSM Intrastate Filings, Rejecting the TAPS Carriers' Post-2000 Revenue Requirement and Rate Filings, Establishing Permanent Post-2000 Intrastate TAPS Rates, Requiring Refunds, Ordering Release of Escrowed Funds, Letters of Credit, and Bonds; Approving Filings and Affirming Electronic Rulings,1997, 1998, 1999 and 2000 Filed TAPS Rates; Setting Just and Reasonable Rates; Requiring Refunds and Filings; and Outlining Phase II Issues* (Docket P–03-4, Order P-03-4[34]), June 10, 2004; and *Order Rejecting 2006 TAPS Settlement Methodology Rates* (Docket P–06-1, Order No. 1), Dec. 16, 2005.

attorneys have a March 13 date with the state Supreme Court for oral arguments. While the litigation continues, the ordered tariff reductions and refunds ordered by the commission for in-state shipments on TAPS have been put on hold.[9]

Nearly 90 per cent of the oil shipped on TAPS goes to the Lower-48 and therefore falls under the jurisdiction of the Federal Energy Regulatory Commission (FERC).[10] TAPS tariffs have been under attack at the federal agency since 2004, when shippers Tesoro and Anadarko – the largest independent producer on the North Slope – protested TAPS tariffs. The shippers were joined by the Department of Law, which is challenging implementation of the TSM without challenging the methodology itself.

On Feb. 16, 2007, the FERC staff filed a 111-page brief that sided with TAPS shippers Anadarko and Tesoro and the state in seeking reduced TAPS tariffs. The report castigated the TAPS owners for trying to defend their filed tariffs with what the staff described as generalities, faulty reasoning and even arguments the commission staff found "silly." In its report to the FERC commissioners, the federal agency staff found no basis to question the RCA's investigation, which it described as "extensive, "exhaustive" and "comprehensive."[11]

While the ongoing litigation over tariffs unfolds at the RCA and at FERC, questions regarding recovery of royalty and production taxes underpaid due to TAPS tariff overcharges – remais in limbo. Oil and gas administration is compartmentalized, and royalty and tax issues are litigated in entirely separate administrative processes,

III. Comments

Sometimes failure to identify the right question can prevented policy makers from seeing – and, therefore, from resolving – fundamental public policy problem. By way of example: when asked to quantify losses attributable to the $5.10 per barrel tariff filed at FERC in December, a senior economist at the Department of Revenue compared the new, TSM-generated tariff to the old TSM tariff, rather than to the RCA benchmark. The result was a widely circulated press report that estimated the state's revenue loss for the current state fiscal year to be less than half the amount estimated here for calendar-year 2007.[12]

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[9] "Decision and Order," Jan. 18. 2006, in Amerada Hess Pipeline Corporation, et al. vs. Regulatory Commission of Alaska (Case No. 3AN-02-13511 CI [Alaska Superior Court, 3rd Judicial District]), Jan. 18, 2006.

[10] See Worksheet 3.

[11] " Initial Brief of the Commission Trial Staff," in State of Alaska v. BP Pipelines (Alaska), et al. (Docket No. ORO5-2-001), Anadarko Petroleum Corporation v. TAPS Carriers (Docket Nos. ORO5-3-001 and ORO6-2-001), Federal Energy Regulatory Commission, Feb. 16, 2007, pp. 6, 27, 97.

[12] The Alaska Department of Revenue estimated a fiscal year 2007 loss of $102 million due to higher tariffs. See: Sam Bishop, "Pipeline rates could cost state millions," *Fairbanks Daily News-Miner*, Jan. 5, 2007; and Associated Press, "Higher tariffs could cost state millions – Hit on state revenues from tariffs about 50%

At critical junctures during introduction and legislative review of the TSM in 1985 and at several points during the settlement's subsequent implementation, discussion of the public policy implications and execution of this important element of petroleum development policy has suffered from the Department of Law's failure to provide key information and a tendency to give short shrift to questions and criticism of the 1985 settlement it negotiated with the TAPS owners.[13] With this background in mind, it should be noted that in the eight years since the governor stated his intention (later recanted) to make lower

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higher under new tax, but overall new tax will still bring in more revenue than old," *Petroleum News*, Jan. 14, 2007 (accessed Jan. 14, 2007 at http://www.petroleumnews.com/pntruncate/357117363.shtml). Both articles stated that the owners were increasing their tariff for CY 2007 by $1.14 per barrel over the prior year. Neither article mentioned that the prior-year tariff increases had been rejected by the RCA in decisions upheld by the Superior Court, or that the prior-year tariffs were also being challenged at FERC. The ADOR estimate of revenue lost is invalid because ADOR is comparing the filed 2007 tariff to the 2006 tariff, which was, in turn, already more than a dollar higher than the RCA order tariff. (Based on information provided by ADOR personnel, it appears that the agency's methodology, if applied to a comparison between current tariffs and the RCA tariff, would produce a significantly higher figure for current lost revenue than estimated here. However, reconciling estimating differences was beyond the limited scope of this report.)

[13] Two of the low points from this history will be briefly summarized here:

As part of a briefing the Department of Law prepared for a joint session of the House Oil and Gas and Senate Resource Committees in March 1985, the Department of Law implied the U.S. Supreme Court would not support a state quest for refunds, when that issue had already been litigated before the Supreme Court, resulting in a unanimous 1978 decision that, in the event of overcharges, the state would, in fact, be entitled to pursue them (case cited in Footnote 4, above). A list of key events in the history of pipeline ratemaking provided by the Department of Law omitted neglected to mention that decision.

Later in 1985, as the settlement neared its final stage, the governor was provided incorrect data on the benefits of settlement versus continued litigation. When the error was discovered, the Department of Law gathered and destroyed original copies of the erroneous document (in apparent violation of state law). Months later, with the substitute document in place, department officials denied that they had altered the document.

(Full documentation for both of the preceding points is found in The 1985 TAPS Tariff Settlement: A Case Study in the Effects of Confidentiality on Information Available to Decision Makers [supplemental report to "Oil and Gas Revenue Disputes"], Alaska State Legislature, February 1990.)

In 1997, when this writer published a report on TAPS antitrust issues for Oilwatch Alaska, the Attorney General dismissed the report in a 14-page letter that:

- mis-stated the central thesis of the report in at least two respects (then proceeded to respond to those straw-man arguments, rather than the substance of the report);
- questioned the veracity of a cited published statement by the chief executive of a North Slope oil company that one reason that his firm traded its North Slope properties to BP and left Alaska was that "all the value of that property was taken away from us in the pipeline tariffs" (when the statement was part of a published magazine interview the company itself distributed); and
- categorically denied the charge that the state had overlooked antitrust problems and claimed to be actively involved whenever that possibility might exist. (But the Attorney General was unaware that an independent tanker operator had filed suits in federal and state courts in Juneau alleging that the Alyeska Pipeline Service Co. had illegally denied its tanker access to Valdez, in violation of federal antitrust and state contract law; the state case was tried in Juneau the following year; theTAPS owners settled out of court for a sum reported to exceed $8 million; as part of the settlement, the companion antitrust case was dropped.)

See: Richard A. Fineberg, *The Big Squeeze: TAPS and the Departure of Major Oil Companies Who Found Oil on Alaska's North Slope*, Oilwatch Alaska (October 1997); Brian O'Donoghue, "Suit Alleges antitrust violations by Alyeska," Fairbanks Daily News-Miner, Nov. 30, 1997, p. 1; and "Memorandum of Decision and Order," in Maritime Endeavor Associates, L.P., vs. Alyeska Pipeline Service Co. (Case No. 1JU-95-1141 CI [Alaska Superior Court, 1st Judicial District]), Sept. 30, 1998.

TAPS tariffs a condition of BP's proposed merger with ARCO in 1999, TAPS tariffs have nearly doubled under TSM, while the state lost over $700 million dollars due to TAPS tariff overcharges between 1999 and 2006. It has been three years since the Department of Law entered into a memorandum of understanding with the TAPS owners to renegotiate the TSM. During this period, the state lost an estimated $330 million.[14] Perhaps more significantly, throughout this entire period the state has failed to correct the significant barrier to North Slope development posed by TAPS tariffs that even the Department of Law now acknowledges are excessive. The documented history of the state's failure to correct its course on TAPS tariffs in a timely manner prompts the following questions: Could an aggressive attempt to alter the state's tariff policy in a timely manner have saved hundreds of millions – perhaps billions – of dollars while promoting instead of inhibiting development? What factors caused the Department of Law to be so slow to recognize – and, more recently, to attempt to redress – the shortcomings of the settlement it negotiated in 1985? [15] Finally, in light of the Department of Law's poor track record on TAPS, one must wonder: Is the Department of Law's latest perfunctory notice of its intent to renegotiate the 1985 settlement (*Alaska Budget Report,* Feb. 22, 2007) anything more than the last bureaucratic gasp of acquiescence to the TAPS owners' demonstrated ability to pocket the gains from excessive TAPS tariffs while talking tariff issues to death?

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[14] See Figure 1. These totals do not include the increasing toll the state will be paying in CY 2007 under the recently implemented petroleum profits tax.

[15] On January 27, 2004, the Department of Law announced that it was entering into closed-door talks with the TAPS owners about re-negotiating the 1985 settlement. The Attorney General, who said he had just assembled "a hand-picked, cross-disciplinary team . . . to conduct the negotiations," said that early negotiations "will benefit all the interested parties, particularly explorers, if we can be successful establishing lower and more predictable tariffs for the future. This could be one of the most important steps we take toward promoting increased oil exploration and development." (Alaska Department of Law, "State and TAPS Owners Enter MOU," Jan. 27, 2004 [News Release]).

Eleven months later, the Attorney General announced he was abandoning those negotiations, and that the state would step up its efforts at FERC to recover revenue lost through the settlement the Department of Law had been instrumental in negotiating two decades earlier. At that time, the Attorney General commented: “We resolved the issues last year in part on the understanding that the owners and the state would attempt during the year to negotiate a successor agreement to the existing 1985 TAPS Settlement Methodology, to remove uncertainty in the future,” Renkes said. “Unfortunately, we were not successful this year in reaching an agreement. We hope the parties will continue to talk, but in the meantime I have informed the owners that I must protect the state’s interests and revenues. We recognize the litigation track may be slow, but it does not preclude simultaneous discussions with the owners.” (Alaska Department of Law, "State Protests 2005 Trans-Alaska Pipeline Oil Transportation Tariffs: Attorney General Says Rates Are Too High," Dec. 15, 2004 (News Release).

Three years later, in the failure of the short transition report to incoming Governor Sarah Palin to note the history of the failed 2004 TAPS tariff negotiations is surprising. That report simply stated: "The State needs to issue a notice of renegotiation on January 1, 2007 in order that we keep open the State's option to terminate the [TAPS Settlement] Agreement as of January 1, 2009. Issuance of the notice defers the substantive decision of whether or not the State should opt for an early termination. . . . This action would thus preserve the State's broadest range of options." (Alaska Department of Law Transition Report, December 2006, p. 3 [obtained by the *Alaska Budget Report* under a Freedom of Information Act request]). The report made no mention of what the 2004 negotiation efforts did (or did not) accomplish.

IV. Conclusions

This critical public policy question seldom receives discussion: When TAPS tariff refunds have proven so difficult to secure over the years, what is the fate of the royalty and production tax collections that depend on resolution of the tariff issue? To foster informed discussion of this important public policy question, Figure 1 and the worksheets attached to this report attempt to cut through the administrative and regulatory thickets of oil and gas operations to answer a simple question: What are the economic effects on the state treasury of the differences between the TSM and RCA TAPS tariffs? This question inevitably calls attention to festering administrative problems with important consequences for public policy.

The failure to correct Trans-Alaska Pipeline System (TAPS) tariff overcharges permitted under the 1985 TAPS Settlement Methodology (TSM) will add more than $200 million to the state revenue losses that complex and controversial formula has granted the TAPS owners since oil began flowing from Prudhoe Bay in 1977. Conservatively reckoned, by the end of 2007 those losses will top $3.0 billion (more than $4.5 billion in 2007 dollars).

In addition to the fiscal costs to the state, the pernicious effect of excessive TAPS tariffs shoots a powerful financial dagger directly at a cornerstone of the state’s hopes for a North Slope natural gas line. The state hopes that tax incentives, offered at state expense, will encourage independent companies to seek and (hopefully) find the additional natural gas on the North Slope necessary to convert the North Slope natural gas mega-project from a pipe dream into a pipeline. But unless the TAPS tariff overcharges are corrected, a major portion of the incentives offered at state expense would be transferred directly into the hands of the TAPS owners, vitiating the intended benefits of the tax incentives.

Experience demonstrates that the retroactive charges on both tariff refunds to shippers and the resulting royalty and production tax refunds to the state grow increasingly difficult to collect as time passes. In light of the important effects of TAPS tariffs (on both state revenue and independent developers) and the Department of Law's documented historical inability or unwillingness to recognize and respond to the problems engendered by the 1985 settlement in a timely manner, the course of TAPS tariff renegotiations is an issue that warrants close public scrutiny.

Appendices (Calculating Worksheets)

Appendix Worksheet Overview

Worksheet 1	**TAPS Weighted Avg. CY 2007 FERC and RCA Tariffs**
	Comments
Worksheet 2	**TAPS and North Slope Production Shares by Company**
Worksheet 3	**Interstate and Intrastate TAPS Shipment Disposition**
Worksheet 4	**Royalty and Tax Effect Calculating Factors**
Worksheet 5	**State and Federal Income Taxes on TAPS Tariff Gains (Losses): Calculating Factors**
Worksheet 6	**Effects of Using 2007 TSM (FERC) Tariff v. RCA Tariff: Producer-Owner Shipping Own Barrels** **(Company, State and Federal Per-Barrel Gains [Losses])**
Worksheet 7A	**Effects of Using 2007 TSM (FERC) Tariff v. RCA Tariff: Owner Carrying Others' Barrels** **(Company, State and Federal Per-Barrel Gains [Losses])**
Worksheet 7B	**Effects of Paying 2007 TSM (FERC) Tariff v. RCA Tariff: Independent Shipper** **(Shipper, State and Federal Per-Barrel Gains [Losses])**
Worksheet 7C	**Total Effects of Paying 2007 TSM (FERC) Tariff for Independent Production** **(Industry, State and Federal Per-Barrel Gains [Losses] v. RCA Tariff)**
Worksheet 8	**Effects of Excess TAPS Tariffs on TAPS Owner v. Independent (Non-Owner) Shipper (Comparison)**
	Notes
Worksheet 9	**Estimated Net Effects of Excess TAPS Tariffs for Industry, State and Federal Governments (CY 2007)**
	Comment

Appendix Worksheet Overview

Worksheet 1 presents the five TAPS carrier TSM (FERC) tariffs for 2007 and their weighted average (Lines [1] through [6]), the RCA tariff (Line [7]) and expense v profit estimates for both, (Lines [8] through [11] and the amount by which the weighted average TSM (FERC) tariff exceeds the RCA tariff (Line [12]). The expense and profit estimates, which are based on available public data, are provided for use in subsequent analysis of the effects of tariff overcharges on the various parties involved:

- TAPS owners (who also own more than 95% of production, net of state royalties);
- North Slope producers (more than 95% controlled by TAPS owners; less than 5% bv independent producers or shippers);
- State of Alaska (whose taxes and royalty payments are affected by TAPS tariffs);
- Federal government (whose federal income tax receipts are affected by TAPS tariffs).

Worksheets 2, 3, 4 and 5 sketch rough estimating factors for

- TAPS and North Slope ownership percentages (Worksheet 2);
- Interstate v. intrastate shipments (Worksheet 3);
- The relationship between TAPS tariffs and state royalty and petroleum profits tax receipts (Worksheet 4); and
- Rules of thumb for estimating state and federal income taxes as a percentage of profits.

Worksheets 6 and 7 outline, in simplified format, the basic transactions that determine the effects of excess tariffs for the affected parties.

Worksheet 8 re-states the information in Worksheets 6 and 7 to highlight the importance of TAPS tariff overcharges to independent producers, or other shippers who do not have an ownership interest in TAPS.

Worksheet 9 combines information from Worksheets 1 through 7 with anticipated North Slope oil production for CY 2007 to estimate the aggregate revenue consequences of excess TAPS tariffs for the state, the federal government and the industry.

Worksheet 1

TAPS Weighted Avg. CY 2007 FERC and RCA Tariffs

Line	***Item***	***$ / Bbl.***	***Notes***
	CY 2007 Tariffs Filed by TAPS Owners (PS#1-Valdez)		
1	BP (46.93%)	$5.10	*Ownership: Alyeska Pipeline Service Compoany, "About Us,"*
2	ConocoPhillips (28.29%)	$5.29	http://www.alyeska-pipe.com/about.html (accessed 3/30/06);
3	ExxonMobil (20.34%)	$4.95	*Filed tariffs: CY 2007 tariffs filed at FERC (see Anadarko Petroleum Corp.*
4	Unocal (1.36%)	$4.75	*and Tesoro Corp., "Protest, Motion to Intervene, Request to Suspend*
5	Koch Alaska (3.08%)	$4.63	*2007 Tariff Filings Subject to Refund . . . .," Dec. 13, 2006, p. 2).*
	Inter-State and Intra-State Filed Tariffs		
6	Wghtd. Avg. FERC Tariff (PS#1 - Valdez)	**$5.10**	*Weighted Avg. Filed Tariff: = Sum of (each owner's filed tariff) * (ownership percentage)*
7	RCA Tariff (PS#1 - Valdez)	**$1.96**	*RCA, "Order Rejecting 2006 Intrastate TAPS Settlement Methodology Rates," pp. 3-5.*
	FERC Tariff: After-Tax Profits v. Costs		
8	**Estimated TAPS profits under FERC Tariff**	**$1.02**	*Estimated TAPS Settlement Methodology profit (includes per-barrel allowance + return on new investment + recovery of deferred return [estimated from tariff data reports])*
9	**Estimated TAPS costs under FERC Tariff**	**$4.08**	*Line (6) - Line (8)*
	RCA Tariff:After-Tax Profits v. Costs		
10	**Estimated TAPS Profits under RCA Tariff**	**$0.20**	*Line (7) * 0.10 (assumes 10% return on total TAPS revenue [11.3% on costs)*
11	**Estimated TAPS costs under RCA Tariff**	**$1.76**	*Line (7) - Line (10)*
Excess Retained by TAPS Owners (FERC tariff v. RCA)			
12	**Excess TAPS Income to TAPS Owners under FERC tariff**	**$3.14**	*Line (6) - Line (7). (Accounting gain or excess realized by TAPS owners on barrels shipped for another company [see Worksheets 6 through 9])*

(See comments on following page.)

Worksheet 1 (Comments) TAPS Weighted Avg. CY 2007 FERC and RCA Tariffs

Tariffs (shipping charges) on the 800-mile Trans-Alaska Pipeline System (TAPS) are regulated by two agencies: The Federal Energy Regulatory Commission (FERC) sets tariffs for approximately 90 percent of the oil shipped through TAPS bounnd for markets outside Alaska. Tariffs on the much smaller portion of North Slope oil that remains in state are under the jurisdiction of the Regulatory Commission of Alaska (RCA). Three major oil companies – British Petroleum, ConocoPhillips and ExxonMobil – control approximately 95% of North Slope production and own a similar share of TAPS.

Until 2002, tariffs at FERC and the RCA were determined under a complicated and controversial set of formulae known as the TAPS Settlement Methodology (TSM). Negotiated between the TAPS owners and the Alaska Department of Law in 1985, TSM was supposed to end eight years of expensive and vexatious litigation, reduce tariff uncertainty and prevent future tariff abuse; things didn't work out that way. Litigation over various aspects of the complicated settlement continued. In 1997 Tesoro, an independent shipper, filed a tariff protest at the RCA challenging as excessive the tariffs produced by the TSM formulae. Throughout the proceeding, the state, represented by the Department of Law, defended the settlement its consultants helped establish in 1985 and argued against Tesoro. Culminating five years of litigation, in November 2002 the RCA ordered the TAPS owners to reduce current tariffs on shipments under its jurisdiction by more than 33 per cent. The RCA found that a $1.96 per barrel tariff would allow the TAPS owners to recover all expenses and earn a reasonable profit on their investment. Findings in the RCA's 2002 order repudiated the TSM. For example, the commission noted, during the first 20 years of TAPS operations the settlement methodology TSM enabled the TAPS owners to charge approximately $10 billion more than necessary to pay all costs, plus a reasonable profit.[1] While much of this sum represented internal transfers between the production and shipping arms of the same company, historical TAPS tariff overcharges reduced state revenue by upwards of $4 billion in 2007 dollars (see report text) because transportation charges must be subtracted from the price of oil before royalties and most taxes are calculated. The RCA concluded that the pre-1997 overcharges were beyond its purview and did not try to correct them; its 2002 order reducing tariffs affects only the tariffs the TAPS owners have charged since 1997.

The TAPS owners challenged the RCA order in court. While wrangling over the tariff, during the last four years the TAPS owners have steadily continued to increase TAPS tariffs under the TSM formula still in use at FERC. The current TSM level of $5.10 per barrel is nearly twice the 1997 tariff and more than 2-1/2 times the charges RCA found to be just and reasonable under Alaska statute. Tesoro (and Anadarko (the largest independent producer on the North Slope) have protested both the TSM methodology and current tariff levels at FERC. (In recent years, the state has belatedly protested the tariff increases under TSM at FERC, targeting implementation issues without challenging the 1985 settlement methodology.)

To understand what this marathon case is costing the state, the following worksheets establish a rough basis for estimating the gains and losses for: (1) the TAPS owners, (3) independent shippers, (3) the state of Alaska and (4) the federal governments. This worksheet and the next four establish simple percentage breakdowns and rough rules of thumb that can be applied to current North Slope production and TAPS throughput. Worksheets 6 through 9 apply the relevant factors to calendar-year 2007 North Slope production and pipeline operations.

Excess TAPS tariffs have two major public policy implications: As shown in the CY 2007 summary of estimated effects in Worksheet 8, excess TAPS tariffs penalize the state Treasury by reducing royalty and petroleum profits taxes. Perhaps more importantly, tariff overcharges handicap independent (non-owner) shippers, who must pay that excess to TAPS owners to get their oil to tidewater. That handicap, estimated in Worksheet 8, undercuts the incentives the state is offering to induce new firms to the North Slope.

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[1] Regulatory Commission of Alaska, *Order Rejecting 1997, 1998, 1999 and 2000 Filed TAPS Rates; Setting Just and Reasonable Rates; Requiring Refunds and Filings; and Outlining Phase II Issues* (Order P-97-4[151] / P-97-7[110]), Nov. 26, 2002, p. 8.

TAPS and North Slope Ownership Shares and Disposition

Wksht. 2. TAPS and North Slope Production: Shares by Company

Line	***Item***	***TAPS Ownership (%)***	***Share of N. Slope Production (%)***
	TAPS Owners		
1	BP	46.93%	34.20%
2	ConocoPhillips	28.29%	40.63%
3	ExxonMobil	20.34%	20.39%
4	Unocal	1.36%	1.21%
5	Koch Alaska	3.08%	
	Other Companies		
6	Anadarko		2.90%
7	Chevron		0.64%
8	All Others		0.03%
9	*Totals*	100.00%	100.00%
	Subtotals		
10	TAPS Owners (5 Companies)	100.00%	96.43%
11	BP, ConocoPhillips and ExxonMobil	95.56%	95.22%
12	Non-TAPS Owners	*(N.A.)*	3.57%

Sources:

TAPS Ownership: *Alyeska Pipeline Service Company, "About Us,"*
http://www.alyeska-pipe.com/about.html (accessed 3/30/06);

North Slope Production Shares (CY 2005): *From Alaska Department of Natural Resources, Division of Oil and Gas, "Summary of Total North Slope Volumes By Lessee Subject to Royalties as of December-05 (Calendar Year-to-date)"*

Worksheet 3. Interstate and Intrastate TAPS Shipment Disposition

Line	***Item***	***N. Slope Production (bpd or %)***
	Throughput Totals and Percentages	
1	Total Throughput, FY 2008-2012	790,000
2	Intrastate Shipments	87,000
3	Interstate Shipments	703,000
4	Intrastate Shipments as % of Total	11.0%
5	Interstate Shipments as % of Total	89.0%

Sources:

1 Alaska Dept. of Revenue, Fall 2006 Revenue Sources Book, p. 12
(FY 2008-2012 average)
2 Regulatory Commission of Alaska, Docket P-97-4, Order No. 151, p. 2.
3 Line (1) - Line (2)
4 Line (2) / Line (1)
5 Line (2) / Line (1)

Royalty and Tax Effect Calculating Factors

<u>Worksheet 4</u>. Estimating State Royalty and Petroleum Profits Tax Effects of TAPS Tariff Gains (Losses) *

Transportation charges are subtracted from the price of oil to determine both royalty and petroleum profits tax payments to the state. For this reason, the state loses approximately $0.26 on every tariff dollar charged. The loss to the state attributable to excess TAPS tariffs is roughly estimated as follows:

Royalty – (12.5% of value, net of transportation costs) –	$1.00 * 0.125 =	$0.125
Production Tax – (estimated effective rate of 15% of post-royalty value at $55.00/bbl.) –	$1.00 * 0.875 * 0.15 =	<u>$0.131</u>
		$0.256

Compared to the loss of state revenue due to excess TAPS tariffs under the old, ELF-based production tax regime, on a per-barrel basis the loss represents an increased loss to the state of approximately $0.05 per barrel. Note: State income taxes offset these losses, but only to a limited extent (see Worksheet 5).

** Estimated from Alaska Department of Revenue Data (see: <u>Fall 2006 Revenue Sources Book</u>, pp. 15-17)*

<u>Worksheet 5.</u> State and Federal Income Taxes on TAPS Tariff Gains (Losses): Calculating Factors

Pipeline tariffs, paid by shippers, include income tax payments on pipeline profits. Therefore, to calculate the net gains to the TAPS owners, shippers, the state and the federal government due to tariff changes, it is necessary to estimate income tax payment effects. This worksheet shows the income tax calculating factors used in these worksheets.

<u>Line</u>	***<u>Item</u>***	***<u>$ / bbl. Gain (Loss)</u>***	***<u>How Calculated (see comments below)</u>***
1	Profit Before Income Taxes	$1,000.00	Profit received from shippers.
2	State Income Tax (SIT)	$37.50	Assumed 3.75% SIT effective rate for SIT (see notes below)
3	Federal Income Tax	$192.50	Assumed 20.0% effective rate on post-SIT profit
4	After-Tax Net Profit	$770.00	(Line [1]) - (Lines [2] + [3])

For these exercises, the effective State Income Tax (SIT) rate is assumed to be 3.75% of before-tax profits (a factor frequently used by state consultants to estimate SIT). The Federal Income Tax (FIT) rate is assumed to be 20% of the remaining profit. (For discussion of estimated income tax payments on North Slope production and pipeline operations, see: <u>The Profitability and Economic Viability of Alaska North Slope and Associated Pipeline Operations</u> [prepared for the Prince William Sound Regional Citizens' Advisory Council, April 27, 2005], Ch. 4.G.).

Worksheet 6. Effects of Using 2007 TSM (FERC) Tariff v. RCA Tariff: Producer-Owner Shipping Own Barrels

(Company, State and Federal Per-Barrel Gains [Losses]) *

Line	***Item***	***$ / bbl. Gain (Loss)***	***How Calculated (see comments below)***
	TAPS Owner Gain (Loss) on Own Barrels		
1	Wghtd. Avg. TSM (FERC) Tariff (PS#1 - Valdez)	$5.10	Worksheet 1, Line (6) (received from TAPS owner's production arm)
2	RCA Tariff (PS#1 - Valdez)	$1.96	Worksheet 1, Line (7)
3	Est. TAPS per-barrel operating and capital costs	($1.76)	Worksheet 1, Line (11)
4	Excess TAPS Income to TAPS Owners	$0.00	Internal Transfer
5	Estimated Profit on RCA tariff Paid to TAPS Owners	$0.20	Line 2 * 0.1 (Worksheet 1, Line 10)
6	Co. Gain from Reduced Royalty & Production Tax	$0.80	(Line [1] - Line [2]) * .256 (see Worksheet 5)
7	Est. added SIT Paid by TAPS Owners at End of Year	($0.03)	Line (6) * -1 * 0.0375 (see Worksheet 5)
8	Est. added FIT Paid by TAPS Owners	($0.15)	(Line [6] + Line [7]) * -1 * 0.20 (see Worksheet 5)
9	**TAPS Owner Net Revenue Gain (Loss)**	**$0.62**	Sum of Lines (6) through (8)
	State Gain (Loss) When Producer Ships Own Barrels Using FERC Tariff		
10	State Royalty & Production Tax Gain (Loss)	($0.80)	Line (6) * -1
11	State SIT Gain (Loss)	$0.03	Line (7) * -1
12	**Total State Gain (Loss)**	**($0.77)**	Line (10) + Line (11)
	Federal Gain (Loss) When Producer Ships Own Barrels Using FERC Tariff		
13	**Federal Gain (Loss)**	**$0.15**	Line (8) * -1

* This worksheet estimates TAPS owner, state and federal net revenue gain (loss) per barrel from shipping its own barrels under the tariff allowed by the Federal Energy Regulatory Commission (FERC), compared to the RCA tariff. Because FERC tariff governs nearly 90% of all TAPS shipments, these estimates apply to the preponderance of the oil shipped on TAPS. Moreover, because three companies own more than 95% of TAPS and control a similar share of North Slope production, the preponderance of the net revenue gains in Line (9) accrue to these firms.

The per-barrel totals at Lines (9), (12) and (13) include owner gains (losses) from reduced royalties and taxes due to higher tariffs (shown on Line [6]), as well as the estimated state and federal income tax effects resulting from the royalty and production tax changes. But for the vertically integrated company, the $3.14 tariff increase (Worksheet 1, Line [12]) that reduces state royalty and production tax payments is not new revenue; rather, it is a transfer from the production to the transportation unit of the same company. Therefore, the increased tariff itself is recorded on Line (4) as a net-zero transfer. On the assumption that the TAPS owner would realize the basic profit shown in Line (5) under any circumstances, the company gains shown on that line are not included in Line (9) and therefore do not affect state or federal income taxes at Lines (7) and (8), which result from the company gain on Line (6).

Worksheet 7A. Effects of Using 2007 TSM (FERC) TAPS Tariff v. RCA Tariff: Owner Carrying Others' Barrels

(Company, State and Federal Per-Barrel Gains [Losses]) *

Line	Item	$ / bbl. Gain (Loss)	How Calculated (see comments below)
	TAPS Owner Gain (Loss) Carrying Others' Barrels		
1	Wghtd. Avg. TSM (FERC) Tariff (PS#1 - Valdez)	$5.10	Worksheet 1, Line (6) (received from TAPS owner's production arm)
2	RCA Tariff (PS#1 - Valdez)	$1.96	Worksheet 1, Line (7)
3	Est. TAPS per-barrel operating and capital costs	($1.76)	Worksheet 1, Line 11
4	Excess TAPS Income to TAPS Owners	$3.14	Line (1) - Line (2)
5	Estimated Profit on RCA tariff Paid to TAPS Owners	$0.20	Line 2 * 0.1 (Worksheet 1, Line 10)
6	Owner Gain from Reduced Royalty & Production Tax	$0.00	Accrues to the Independent Producer (recorded on Worksheet 7B)
7	Est. added SIT Paid by TAPS Owner at End of Year	($0.12)	Line (4) * -1 * 0.0375 (see Worksheet 5)
8	Est. added FIT Paid by TAPS Owners	($0.60)	(Line [4] - Line [7]) * 0.20 (see Worksheet 5)
9	**TAPS Owner Net Revenue Gain (Loss)**	**$2.42**	Line (4) + Sum of (Lines [6] through [8])
	State Gain (Loss) When TAPS Owner Carries Others' Barrels Using FERC Tariff		
10	State Royalty & Production Tax Gain (Loss)	$0.00	Recorded on Worksheet 7B (see Line [6])
11	State SIT Gain (Loss)	$0.12	Line (7) * -1
12	**Subtotal State Gain (Loss)**	**$0.12**	Line (10) + Line (11)
	Federal Gain (Loss) When TAPS Owner Carries Others' Barrels Using FERC Tariff		
13	**Subtotal Federal Gain (Loss)**	**$0.60**	Line (8) * -1

** This worksheet estimates TAPS owner, state and federal net revenue gain (loss) per barrel when the TAPS owner carries the barrels of others, charging them the higher Federal Energy Regulatory Commission (FERC) tariff, compared to the RCA tariff. Effects on the independent shipper and the resulting changes to state and federal income tax payments are estimated in Worksheet 7B; the net effects of this transaction are summarized in Worksheet 7C, which combines the effects of Worksheets 7A and 7B. Since the major TAPS owners control an estimated 95% of both North Slope production and TAPS, these estimated results apply to less than 5% of the barrels shipped on TAPS under the higher, FERC-approved tariff.*

The principal differences between this worksheet and Worksheet 6 involve the cash flows at Lines (4) and (6). In this transaction, the TAPS owner receives in estimated $3.14 per barrel in excess to the RCA tariff; as shown in Line (4); in Worksheet 6, this amount is an internal transfer that does not generate new revenue. At Line (6) of this worksheet, the TAPS owner realizes no direct benefit from reduced royalties and petroleum profits tax payments (these gains accrue to the independent producer and are shown in shipper's Worksheet 7B). The resulting effects on state and federal income taxes are shown in Lines (7) and (8); the bottom line results for the TAPS owner, state and the federal government are shown at Lines (9), (12) and (13).

(Research Associates, February 2007)

Worksheet 7B.

Effects of Paying 2007 TSM (FERC) TAPS Tariff v. RCA Tariff: Independent Shipper

(Shipper, State and Federal Per-Barrel Gains [Losses]) *

Line	***Item***	***$ / bbl. Gain (Loss)***	***How Calculated (see comments below)***
	Independent Shipper Gain (Loss)		
1	Wghtd. Avg. TSM (FERC) Tariff (PS#1 - Valdez)	$5.10	Worksheet 1, Line (6) (paid to TAPS owner)
2	RCA Tariff (PS#1 - Valdez)	$1.96	Worksheet 1, Line (7)
3	Est. TAPS per-barrel operating and capital costs	($1.76)	Worksheet 1, Line (11)
4	Excess TAPS Income to TAPS Owners	($3.14)	(Line [1] - Line [2]) * -1
5	Estimated Profit on RCA tariff Paid to TAPS Owners	$0.20	Line 2 * 0.1 (Worksheet 1, Line 10)
6	Co. Gain from Reduced Royalty & Production Tax	$0.80	(Line [4]) * -1 * .256 (see Worksheet 4)
7	Effect on SIT Paid by Independent Shipper	$0.09	(Line [4] + Line [6]) * -1 * 0.0375 (see Worksheet 5)
8	Effect on FIT Paid by Independent Shipper	$0.45	(Line [4] + Line [6] + Line 7) * -1 * 0.20 (see Worksheet 5)
9	**Independent Shipper Net Revenue Gain (Loss)**	**($1.80)**	Line (4) + Sum of (Lines [6] through [8])
	State Gain (Loss) When Indpendent Shipper Pays FERC Tariff		
10	State Royalty & Production Tax Gain (Loss)	($0.80)	Line (6) * -1
11	State SIT Gain (Loss)	($0.09)	Line (7) * -1
12	**Subtotal State Gain (Loss)**	**($0.89)**	Line (10) + Line (11)
	Federal Gain (Loss) When Independent Shipper Pays FERC Tariff		
13	**Subtotal Federal Gain (Loss)**	**($0.45)**	Line (8) * -1

** This worksheet estimates independent shipper , state and federal net revenue gain (loss) per barrel when the TAPS owner carries the barrels of others, charging them the higher Federal Energy Regulatory Commission (FERC) tariff, compared to the RCA tariff. Effects on the TAPS owner and the resulting changes to state and federal income tax payments are estimated in Worksheet 7B. The net effects of this transaction are summarized in Worksheet 7C, which combines the effects of Worksheets 7A and 7B. Since the major TAPS owners control an estimated 95% of both North Slope production and TAPS, these estimated results apply to less than 5% of the barrels shipped on TAPS under the higher, FERC-approved tariff. As in Worksheet 7A, state and federal infcome tax effects are shown at Lines (7) and (8), while the bottom line for the independent producer, state and federal governments are shown at Lines (9), (12) and (13).*

The principal differences between this worksheet and Worksheets 7A derive from the different cash flows at Lines (4) and (6). On this side of the transaction, the independent shipper pays an estimated $3.14 per barrel in excess to the RCA tariff at Line (4). This out-of-pocket payment to the TAPS owners is only partially offset by gains from reduced royalties and petroleum profits tax payments, shown on Line (6). As a result, after tax effects are reckoned, the independent shipper is down $1.80, as shown at Line (9). On the other side of this transaction, the TAPS owner gains $2.42, as shown at Line [9] of Worksheet 7A.

(Research Associates, February 2007)

Worksheet 7C.

Total Effects of Using 2007 TSM (FERC) Tariff for Independent Production

(Industry, State and Federal Net Per-Barrel Gains [Losses] v. RCA Tariff)*

Line	***Item***	***$ / bbl. Gain (Loss)***	***How Calculated (see comments below)***
	Total TAPS Owner and Independent Shipper Net Gain (Loss)		
1	Wghtd. Avg. TSM (FERC) Tariff (PS#1 - Valdez)	$5.10	Worksheet 1, Line (6)
2	RCA Tariff (PS#1 - Valdez)	$1.96	Worksheet 1, Line (7)
3	Est. TAPS per-barrel operating and capital costs	($1.76)	Worksheet 1, Line (11)
4	Excess TAPS Income to TAPS Owners	$0.00	Sum of Worksheets 7A and 7B, Line (4)
5	Estimated Profit on RCA tariff Paid to TAPS Owners	$0.20	Line 2 * 0.1 (Worksheet 1, Line 10)
6	Total Co. Gain from Reduced Royalty & Production Tax	$0.80	Sum of Worksheets 7A and 7B, Line (6)
7	Total Effect on SIT for Independent Shipper Transaction	($0.03)	Sum of Worksheets 7A and 7B, Line (7)
8	Total Effect on FIT for Independent Shipper Transaction	($0.15)	Sum of Worksheets 7A and 7B, Line (8)
9	**Total Owner and Independent Shipper Revenue Gain (Loss)**	**$0.62**	Sum of Lines (4) + (Lines [6] through [8])
	Total State Gain (Loss) When Indpendent Shipper Uses FERC Tariff		
10	State Royalty & Production Tax Gain (Loss)	($0.80)	Line (6) * -1
11	State SIT Gain (Loss)	$0.03	Line (7) * -1
12	**Total State Gain (Loss)**	**($0.77)**	Line (10) + Line (11)
	Total Federal Gain (Loss) When Independent Shipper Uses FERC Tariff		
13	**Total Federal Gain (Loss)**	**$0.15**	Line (8) * -1

** This worksheet combines the net revenue totals from Worksheets 7A and 7B to estimates total TAPS owner and independent shipper, state and federal net revenue gain (loss) per barrel when shipping independent barrels using the tariff allowed by the Federal Energy Regulatory Commission (FERC), compared to the RCA tariff. As noted on the previous worksheets, Independent shipments constitute less than five per cent (5%) of all barrels shipped on TAPS under the higher, FERC-approved tariff.*

Although the TAPS owner gains from shipping an independent producer or shipper's barrels while the independent producer or shipper loses money, when the results from both sides of this transaction are combined, the net effects for the industry, the state and the federal government turn out to be identical to the revenue effects for the TAPS owner shipping its own barrels, as reported in Worksheet 6. (For discussion of the policy implications of the differences between Worksheets 7A and 7B, see comments attached to Worksheet 9.)

Worksheet 8. Effects of Excess TAPS Tariffs on TAPS Owner v. Independent (Non-Owner) Shipper (Comparison) *

Line	***TAPS Owner, State Per-Bbl. Gain (Loss)***	***$ / bbl. Gain (Loss)***	***Independent Shipper, State Per-Bbl. Gain (Loss)***	***$ / bbl. Gain (Loss)***
1	Wghtd. Avg. TSM (FERC) Tariff (PS#1 - Valdez)	$5.10	Wghtd. Avg. TSM (FERC) Tariff (PS#1 - Valdez)	($5.10)
2	RCA Tariff (PS#1 - Valdez)	$1.96	RCA Tariff (PS#1 - Valdez)	$1.96
3	Est. TAPS per-barrel operating and capital costs	($1.76)	Est. TAPS per-barrel operating and capital costs	($1.76)
4	Excess TAPS Income to TAPS Owners	$3.14	Excess TAPS Income to TAPS Owners	($3.14)
5	Est. After-Tax Profit on RCA tariff Paid to TAPS Owners	$0.20	Est. After-Tax Profit on RCA tariff Paid to TAPS Owners	$0.20
6	Co. Gain from Royalty & Production Tax Reduction	$0.00	Co. Gain from Royalty & Production Tax Reduction	$0.80
7	Est. added SIT Paid by TAPS Owners at End of Year	($0.12)	Est. Gain from Reduced SIT Paid by TAPS Shippers	$0.09
8	Est. added FIT Paid by TAPS Owners	($0.60)	Est. Gain from Reduced FIT Paid by TAPS Shippers	$0.45
9	TAPS Owner Net Revenue Gain (Loss)	$2.42	Independent Shipper Gain (Loss)	($1.80)
10	**= = = >**		**Difference in TAPS Owner Gain and Non-Owner Loss on TAPS Shipments by Independent Producer / Shipper**	**$4.22**
11	State Revenue Gain (Loss)	$0.12	State Revenue Gain (Loss)	($0.89)
12	**= = = >**		**State Net Revenue Gain (Loss) from TAPS Shipments by Independent Producer / Shipper**	**($0.77)**

	How Calculated (see notes on following page)		***How Calculated (see notes on following page)***
1	Worksheet 1, Line [6] (received from TAPS Owner's production unit)	1	Worksheet 1, Line [6]) * -1 (paid to TAPS Owner)
2	Worksheet 1, Line [7]	2	Worksheet 1, Line [7]
3	(Worksheet 1, Line [11]) * -1	3	(Worksheet 1, Line [11]) * -1
4	Line (1) - Line (2) (see Wksht. 1, Line [12])	4	Line (1) - Line (2) (see Wksht. 1, Line [12])
5	Line (2) * 0.1 (Worksheet 1, Line [10])	5	Line (2) * 0.1 (Worksheet 1, Line [10])
6	(Royalty and petroleum profits tax gain accrues to Producer or Shipper)	6	Owner's Line 4 * 0.256 (per Worksheet 4)
7	(Line [4]) * 0.0375 (per Worksheet 5)	7	(Line [6]) * 0.0375 (per Worksheet 5)
8	Sum of (Line [4] + [6] + [7]) * 0.20 (per Worksheet 5)	8	Sum of (Lines [4] + [6] + [7]) * 0.20 (per Worksheet 5)
9	(Line [4] + Sum of (Line [6] through Line [8]) (See \worksheet 7A)	9	(Line [4] + Sum of (Line [6] through Line [8]) (See \worksheet 7B)
10	**= = = >**	10	Owner's Line (9) - Shipper's Line (9)
11	(Line [7]) * -1	11	(Line [7]) * -1
12	**= = = >**	12	Owner's Line (11) + Shipper's Line (11)

**** This transaction analysis does not attempt to quantify owner gains (losses) from shipping its own barrels (see notes on following page.)***

Research Associates, February 2007

Worksheet 8
(Notes)

Effects of Excess TAPS Tariffs on TAPS Owner v. Independent (Non-Owner) Shipper Owner (Comparison) *

The purpose of this worksheet is to contrast the consequences for an independent party of shipping a barrel of North Slope crude oil on TAPS under the TSM (FERC) tariff, compared to the RCA tariff. To this end, this worksheet puts key data from Worksheets 7A and 7B on a single page, rather than combining the results (as in Worksheet 7C). The TAPS owner gains on this transaction delineated in **Worksheet 7A** are shown in the left-hand column of this worksheet. On the flip side of the same transaction, the independent shipper losses shown in **Worksheet 7B** are displayed in the right-hand column.

To summarize this transaction analysis: When TAPS carries a barrel of oil for an independent producer or shipper in interstate commerce, the TAPS owner gains $2.42 from the difference between the FERC-approved TAPS tariff (5.10 per barrel) and the RCA's tariff for oil that stays in Alaska ($1.96 per barrel).On the other hand, the independent shipper incurs a $1.80 per barrel loss. In sum, from a cash flow standpoint, the excess in the TSM (FERC) tariff penalizes the independent shipper on TAPS $4.22 per barrel, compared to the TAPS owner. This handicap to independent developers results from the $3.14 excess in the FERC tariff, compared to the RCA tariff.

** This transaction analysis does not consider TAPS owner costs, gains and/or losses from shipping its own barrels. As shown in Worksheets 6 and 7B, the TAPS owner shipping its own barrels under the TSM realizes a net gain of $0.62 per barrel due to the higher FERC tariff (Worksheet 6, Line [9]), while the independent producer or shipper incurs a $1.80 per barrel loss (Worksheet 7B, Line [9]).*

Worksheet 9. Estimated Net Effects of Excess TAPS Tariffs for Industry, State and Federal Governments (CY 2007)

(A)	(B)	(C)	(D)	(E)
Assumptions				***Notes***
1	North Slope Production, CY 2007	276.31	million bls.	*From Alaska Dept. of Revenue, Revenue Sources Book, Fall 2006, p. 12 (est. 757,000 bpd).*
2	N. Slope Production by TAPS Owners (96.43%)	266.44	million bls. ***	*(2C) = (1C) * 0.9643 (See Worksheet 2)*
3	Independent Production (3.57%)	9.86	million bls. ***	*(3C) = (1C) * 0.0357 (see Worksheet 2)*
4	Interstate Barrels (Percentage)	89.00%	% ***	*See Worksheet 3*
		Per-barrel Gain (Loss) * *($ / bbl.)*	***Net Effect – Gain (Loss)*** ** *(Million $)*	***Calculating Factors *****
State Revenue Gain (Loss): TSM v. RCA Tariffs				
5	TAPS Owner Carrying Own Barrels	($0.77)	($205.16)	*(5D) = (2C) * (5C)*
6	TAPS Owner Carrying Others' Barrels	($0.77)	($7.60)	*(6D) = (3C) * (6C)*
7	Total State Revenue Gain (Loss)		**($212.75)**	*(7D) = (5D) + (6D)*
Federal Revenue Gain (Loss): TSM v. RCA Tariffs				
8	TAPS Owner Carrying Own Barrels	$0.15	$39.97	*(8D) = (2C) * (8C)*
9	TAPS Owner Carrying Others' Barrels	$0.15	$1.48	*(9D) = (3C) * (9C)*
10	Total Federal Revenue Gain (Loss)		$41.45	*(10D) = (8D) + (9D)*
Industry Net Gain (Loss): : TSM v. RCA Tariffs				
11	TAPS Owner Carrying Own Barrels	$0.62	$165.19	*(11D) = (2C) * (11C)*
12	TAPS Owner Carrying Others' Barrels	$0.62	$6.12	*(12D) = (3C) * (12C)*
13	Total Industry Revenue Gain (Loss)		$171.31	*(13D) = (11D) * (12D)*

** Factors in Col. (C) are calculated on Worksheets 6 and 7C at Lines (9), (12) and (13).*

*** Assumes TAPS owners use FERC tariff to calculate royalty and production tax on in-state barrels while challenging RCA TAPS tariff orders.*

**** In-state and independent producer volumes and calculating factors are displayed here to show their approximate volumes.*

Worksheet 9
(Comment)

Estimated Net Effects of Excess TAPS Tariffs for Industry, State and Federal Governments (CY 2007)

During calendar year 2007, reduced state royalty and production tax payments due to excess TAPS tariffs will reduce state revenue by approximately $213 million, compared to the revenue the state would have received from application of the Regulatory Commission of Alaska (RCA) TAPS tariff to all barrels shipped on TAPS. Because the TAPS owners continue to collect their filed tariffs in interstate commerce while they challenge the RCA's order requiring reduced tariffs and tariff refunds on intrastate shipments, this estimate reflects state losses in both interstate and in-state shipments, using the estimate of what the state gives up per barrel of oil shipped commerce (Line [12] of Worksheets 6 and 7C).

In terms of aggregate industry, state and federal results of excess tariffs, whether the TAPS owner is carrying its own barrel or the barrel of an independent producer or shipper does not affect the outcome of these calculations. That is because the handicap to the independent producer or shipper due to excess TAPS tariffs under TSM (quantified for the current year in Worksheet 7A) and the benefits of that shipping arrangement to the TAPS owner (shown in Worksheet 7B) combine to cancel each other out (Worksheet 7C). For this reason, the total effects on state, federal and industry revenue (as shown in Column C of Worksheet 9) are the same when a barrel of oil produced on the North Slope is shipped on TAPS by a TAPS owner, and when it is shipped by an independent producer or shipper.

These worksheets illustrate how the focus on total state revenue can mask the importance of other public policy consequences, such as the effects of excess TAPS tariffs on independent producers or shippers. Consider: In 2006, the State Legislature replaced the severance tax with a petroleum profits tax (PPT), which was designed to increase the state's petroleum revenue "take" while offering investment incentives to prospective developers in the form of tax deductions and write-offs. A major purpose of these inducements – offered at state expense – was to draw new developers to the North Slope in hopes that they would discover the additional natural gas necessary to assure the economic viability of the long-delayed natural gas pipeline from Prudhoe Bay to southern markets.   But Worksheets 7A and 7B reveal a major reason why prospective independent developers may hesitate to come to Alaska. Worksheet 7A shows that when TAPS carries a barrel of oil for an independent producer or shipper, the TAPS owner gains $2.42 from the excess charges embedded in the $5.10 TAPS tariff. On the flip side of the same transaction, the independent shipper loses $1.80 per barrel. In other words, the first $1.80 given up by the state in tax incentives would simply neutralize the penalty that excess TAPS tariffs currently impose on the independent shipper for the benefit of the TAPS owner. But these incentives do not level the playing field because the TAPS owners are eligible for the same tax benefits. As shown in Worksheet 8, as a result of the excess tariffs permitted by TSM, the independent shipper currently faces a $4.22 per barrel handicap, relative to the TAPS owner. That handicap is the net effect of the $3.14 excess in the FERC tariff, according to the RCA reckoning, identified in Worksheet 1.