2/13 – 2/14/12 JOINT OIL TAX POLICY HEARINGS

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SESSION
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Policy Options for Alaska Oil and Gas

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Presentation
Alaska Senate Finance Committee

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Introductory Comment

The objective of Governor Parnell is to achieve a TAPS throughput of 1 million barrels per day.

Can this objective be achieved from State of Alaska resources by 2025? **Yes**

How?

It will require major policy and fiscal changes as will be discussed during the seminar.

These changes need to induce an increase in investment of about $ 7.5 billion per year over current levels.

Introductory Comment

Such major policy and fiscal changes could also induce significant exports of LNG prior to 2025.

Four Sessions

The seminar will develop in four sessions:

1. New policy framework required
2. International competitive environment
3. Proposed terms for existing and new light oil
4. Proposed terms for heavy oil, shale oil and natural gas

Session 1

New policy framework required

World Rating of Oil and Gas Terms

Much of the material to be presented during the seminar is derived from a large international study being done by Van Meurs Corporation entitled:

World Rating of Oil and Gas Terms

In this study oil and gas fiscal systems of more than 140 countries and jurisdictions, such as Alaska, are being compared and analyzed in order to determine their favorability for investors.

Information about the study is available on:

www.petrocash.com

World Rating of Oil and Gas Terms

The 2011-2012 ratings of fiscal terms will cover 6 volumes.

Four volumes have been completed:
- North American wells and shale plays
- Deep water
- Arctic
- Shallow water

Two volumes still to be completed:
- Onshore fields and shale plays
- Summary

Alaska fiscal terms

During the seminar specific new fiscal terms will be proposed for Alaska oil and gas.

The purpose of these terms is to demonstrate how a new fiscal system can be created and to indicate the order of magnitude of the amounts and rates that would need to be adopted.

Concept of Government Take

During the seminar the concept of "government take" will be used frequently. Following is an example of the calculation of the government take for a 10% royalty.

Gross Revenues	**$ 100 per barrel**
Costs	**$ 20 per barrel**
Divisible Income	**$ 80 per barrel**
Royalty 10%	**$ 10 per barrel**

Government Take: ($ 10 / $ 80) x 100% = 12.5%

The Government Take in this seminar is presented on an undiscounted and real basis using an escalation and inflation rate of 2% and is based on price and cost data as contained in Volume 3 of World Rating of Oil and Gas Terms.

Policy Change required

Alaska will not be able to reverse the decline in oil production from State of Alaska leases unless Alaska encourages major investment in:

- **Heavy oil,**
- **Potentially Shale Oil, if technically and economically viable, and**
- **Maybe some GTL production**

Policy Change required

If Alaska wants to attract investment in a major way for the important new resources (heavy oil, gas and potentially shale oil), significant political change is required in Alaska.

These changes are:

1. Alaska has to define competitive fiscal terms for the entire range of oil and gas resources, so investors know what the terms are.
2. Alaska has to offer fiscal stability on these terms for large new projects, so investors know that Alaska will honor these terms for a significant duration.

Policy Change required

Alaska is only jurisdiction in the world without defined fiscal terms for major oil and gas resources within its jurisdiction.

Alaska has no fiscal terms designed for heavy oil.

Alaska has no fiscal terms designed for shale oil.

Alaska has no implementable fiscal terms for natural gas.

This is a major obstacle for new investment.

Alaska political climate

It will be very difficult to introduce such changes in the current somewhat unfavorable political climate in Alaska.

The unfavorable political climate in Alaska is "structural"; in other words it is unlikely to change.

It is created by two factors:

- The small size of the Alaska population creates a particular way of developing fiscal policy, and
- An dependency relationship of Alaska on three major oil companies for most of their government budget, which creates resentment among some Alaskans. "Standing up for Alaska" is politically popular.

Political climate:

Small size of population

Jurisdictions with small populations (<2 million) develop oil and gas fiscal systems differently than jurisdictions with large populations (> 2 million) .

Small jurisdictions are often “project driven”. They tend to wait for someone to propose a project before deciding on detailed terms. Often terms are complex because many local interests need to be dealt with and terms are tailored for specific conditions.

Examples with population in millions: Alaska (0.7), Newfoundland & Labrador (0.5), Trinidad and Tobago (1.3), Equatorial Guinea (0.7) and Qatar (1.7).

Political climate:

Large populations

Jurisdictions with large populations of have generic petroleum codes and tax laws which deal with all petroleum resources. Terms are identical for all investors. Terms may be adjusted for each bid round. Often petroleum fiscal terms are relatively simple.

Examples with population in millions: United States (Federal onshore and OCS) (312.1), Norway (5.0), Alberta (3.7), the United Kingdom (62.3) and Australia (22.8).

Competitive Framework for Alaska: 1997

Petroleum economic environment:

- Oil price low
- European and Asian gas prices low
- LNG trade limited
- Focus on conventional oil and gas
- Conventional oil production in US declining

Competitors of Alaska:

- Latin American, African and Asian developing countries
- Main LNG competitor: Qatar

Method of determining fiscal terms by competitors:

- Negotiations of production sharing contracts resulting typically in tough terms

Competitive Framework for Alaska: 2012

Petroleum economic environment:
- High oil prices
- High European and Asian gas prices
- Booming LNG trade
- Focus on unconventional oil and gas
- Oil production in US and Canada increasing

Competitors of Alaska:
- Lower 48 USA, Canada, Russia and Brazil
- Main LNG competitor: Australia

Method of determining fiscal terms by competitors:
- Fixed and usually attractive fiscal terms.

Alaska Political climate:

Negative experience

The fact that fiscal terms in Alaska are being defined once a project is identified has already resulted twice in the loss of a major gas export project:

- **Under Governor Knowles in 1996 there were realistic opportunities for LNG exports to Asia. Yet, the process of having first to develop the "Stranded Gas Development Act" in order to enter in negotiations resulted in a situation where Asian buyers went elsewhere.**
- **Under Governor Murkowski in 2003 there was a significant opportunity to built a gas line to Alberta. Yet, strong opposition within government and from Alaskans delayed negotiations and resulted in a disapproval of the project.**

These experiences create a negative environment for the proposal of new projects by major companies in Alaska.

Policy change required

If Alaska wants to attract major new investment in the new competitive environment of 2012 and achieve a million bopd target and LNG exports, it has to establish competitive and fixed terms for all its resources:

- Existing light oil
- New light oil
- Heavy oil
- Ultra heavy oil
- Shale oil
- New natural gas
- Associated natural gas

What Alaska needs is a “we are open for business” brochure that sets out all terms for investing in oil and gas in Alaska.

Implementation of new terms.

With respect to light oil for existing and new production it seems that no particular implementation measures need to be taken. It is likely that investors will respond positively to the new terms and make the necessary investments, unless the project involves major new investments, such as the development of Point Thomson.

With respect to heavy oil, shale oil, natural gas and GTL it is unlikely that investors will commit to large multi-billion dollar programs unless there is a degree of fiscal stability in a contractual framework.

Contractual relationship.

If investors feel that fiscal stability is required for their investments, the Government of Alaska should be authorized to sign contracts, without further legislative approval. In other words the process would be similar to the approval of an oil sands plant in Alberta.

The fiscal stability period could range from 10 – 25 years from the start of the contract, depending on the nature of the investment.

In exchange for being offered fiscal stability, the investor would have to commit to a substantive work program.

It is understood that the matter of whether or not Alaska can offer fiscal stability, is an issue to be decided by the Alaska Supreme Court.

Difficulties in achieving Alaska production increases

Increasing Alaska oil production and initiation of gas exports will face other major difficulties.

The main difficulty is that the three major oil companies are in a "harvesting mode", which means their main objective is drawing cash out of Alaska to invest elsewhere. The reasons for this are:

- No large and attractive projects available in Alaska under current fiscal terms for major oil companies
- Attractive opportunities outside Alaska.

No attractive projects in Alaska
for major oil companies

Current fiscal terms are designed for *low cost light oil*.

There is possibly about one billion barrels of new *high cost light oil* production available through:

- Discoveries as a result of new exploration
- Small discovered fields, which have not yet been brought on stream
- Infill drilling of existing fields.

Major oil companies are already infill drilling, other projects do not compare well in attractiveness with international opportunities.

As a result, the main focus of major oil companies is to draw cash out of Alaska for investment elsewhere.

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Session 2

International competitive framework

Attractive terms outside Alaska

for major oil companies

In the following slides the international competitive position for Alaska will be evaluated for the following resources:

- Existing light oil production
- New light oil production
- Heavy oil
- Shale oil, and
- Natural Gas

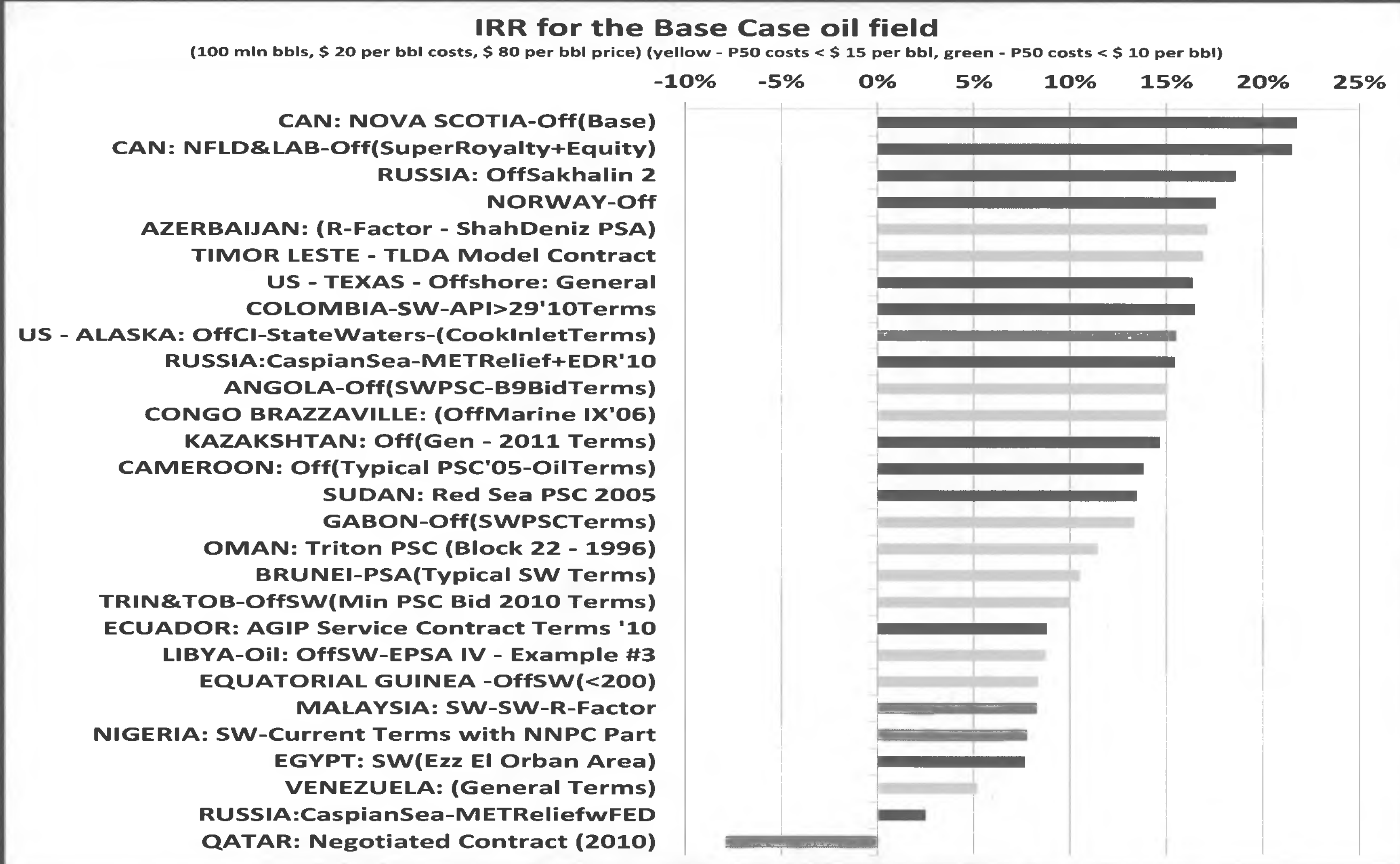
International competition:
Existing oil production

The Shallow Water results of World Rating of Oil and Gas Terms permit a comparison with the largest "peer group". The largest peer group for Alaska are the exporting jurisdictions. The following charts provide the results for a selection of 28 exporters of oil.

The Arctic Report permits a comparison with other Arctic jurisdictions.

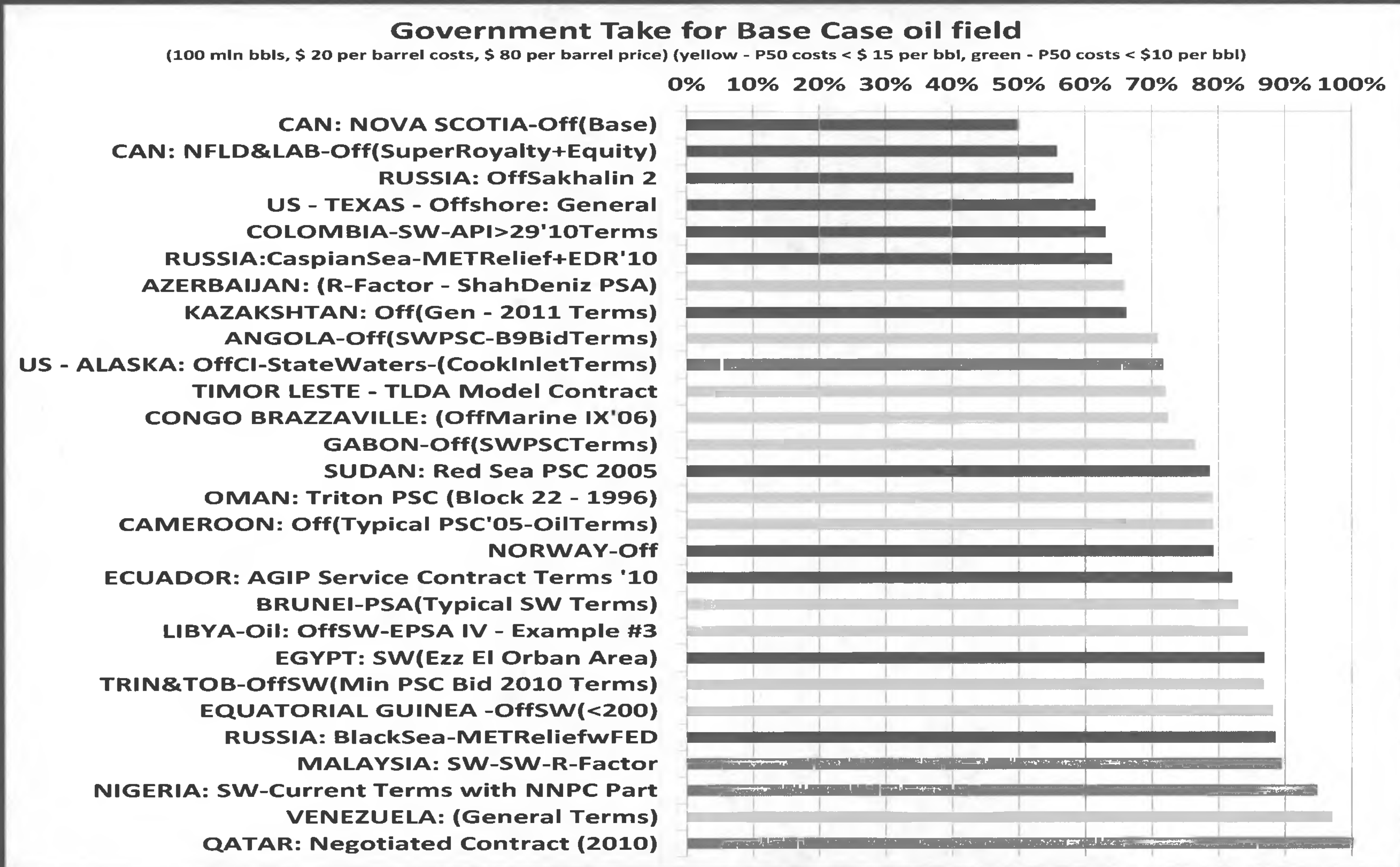
Following is an overview of the results.

Shallow water exporters (Oil)



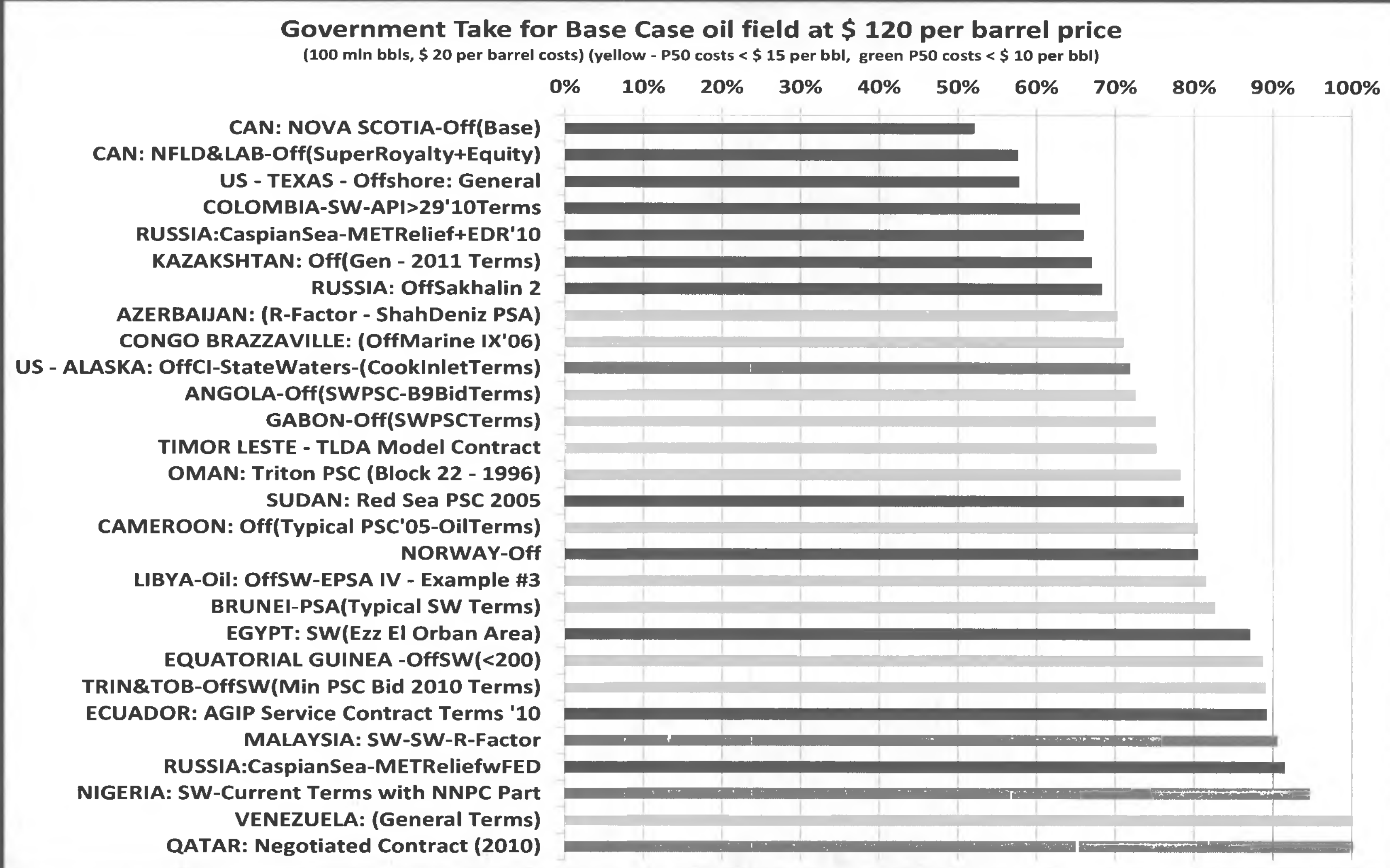
IRR: Alaska terms rate # 9 out of 28 exporters.

Shallow water exporters (Oil) - $ 80



Undiscounted Government Take: Alaska terms rate # 10 out of 28 exporters.

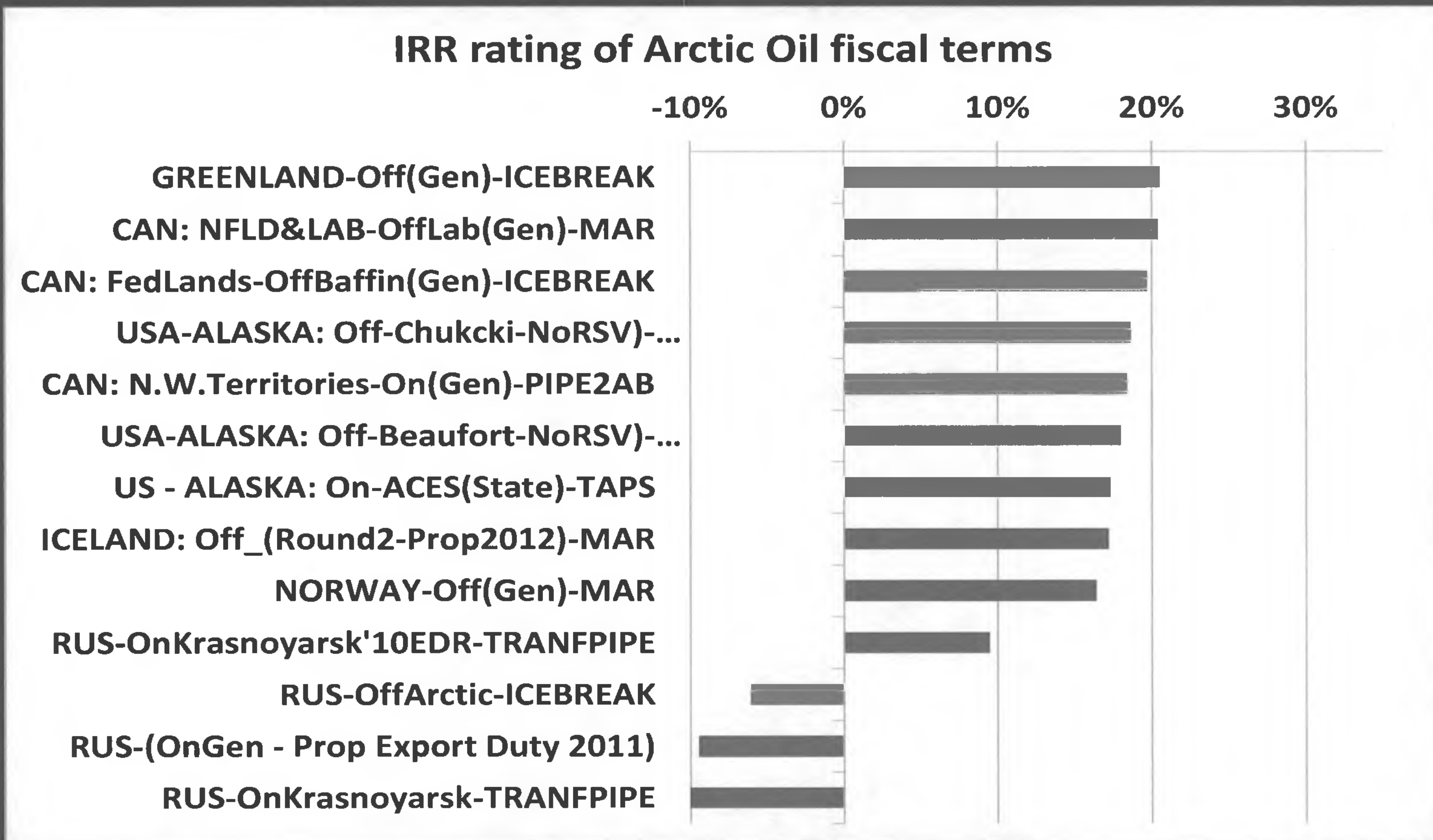
Shallow water exporters (Oil) - $ 120



Undiscounted Government Take at $ 120 per barrel: Alaska terms also rate # 10 out of 28 exporters.

Arctic (Oil)

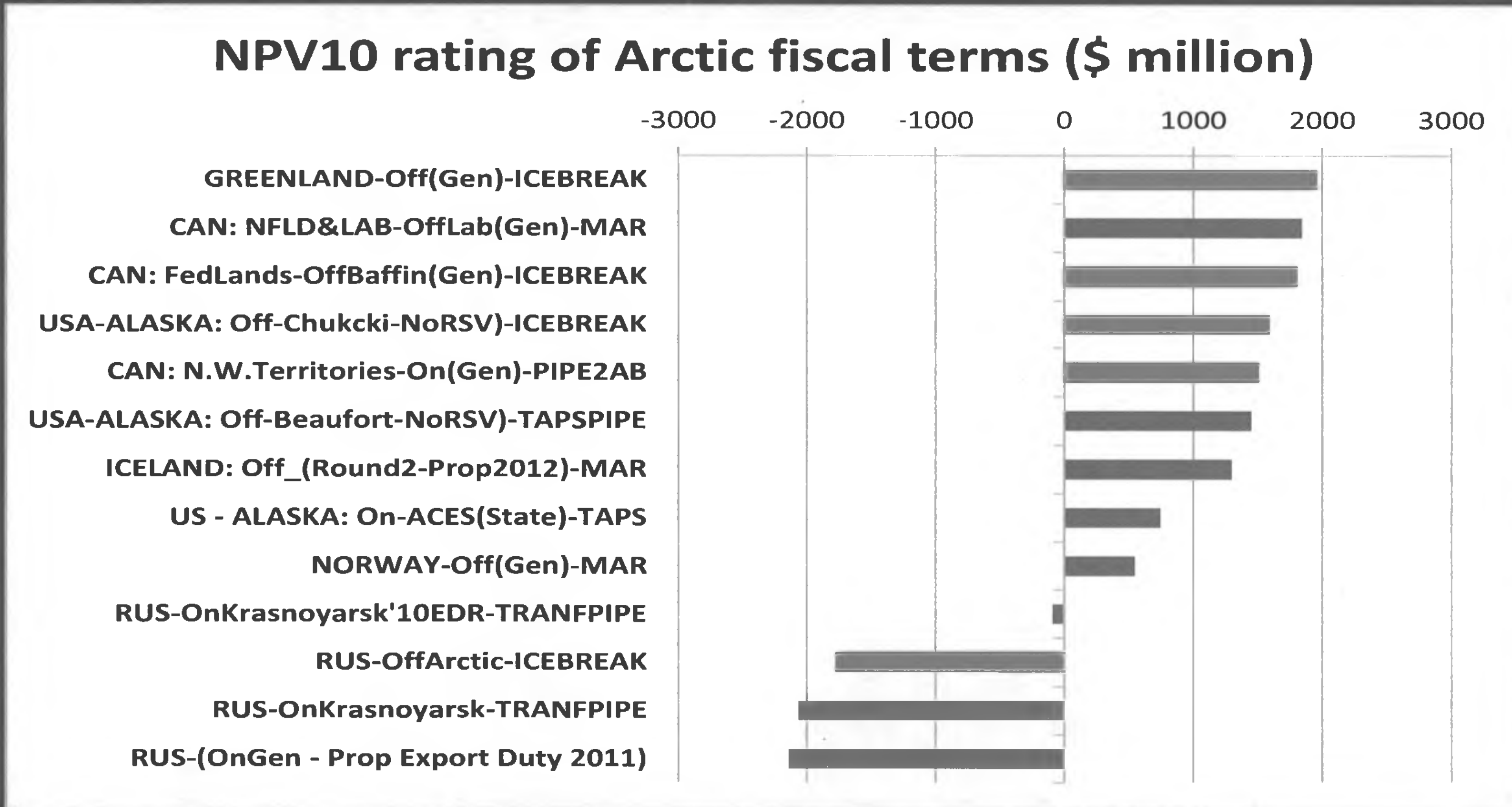
(red – no transport system available)



Alaska ACES IRR compares favorably with other Arctic jurisdictions. Russia still very tough under high cost and slow development conditions. Russian terms are rather attractive under lower cost conditions.

Arctic (Oil)

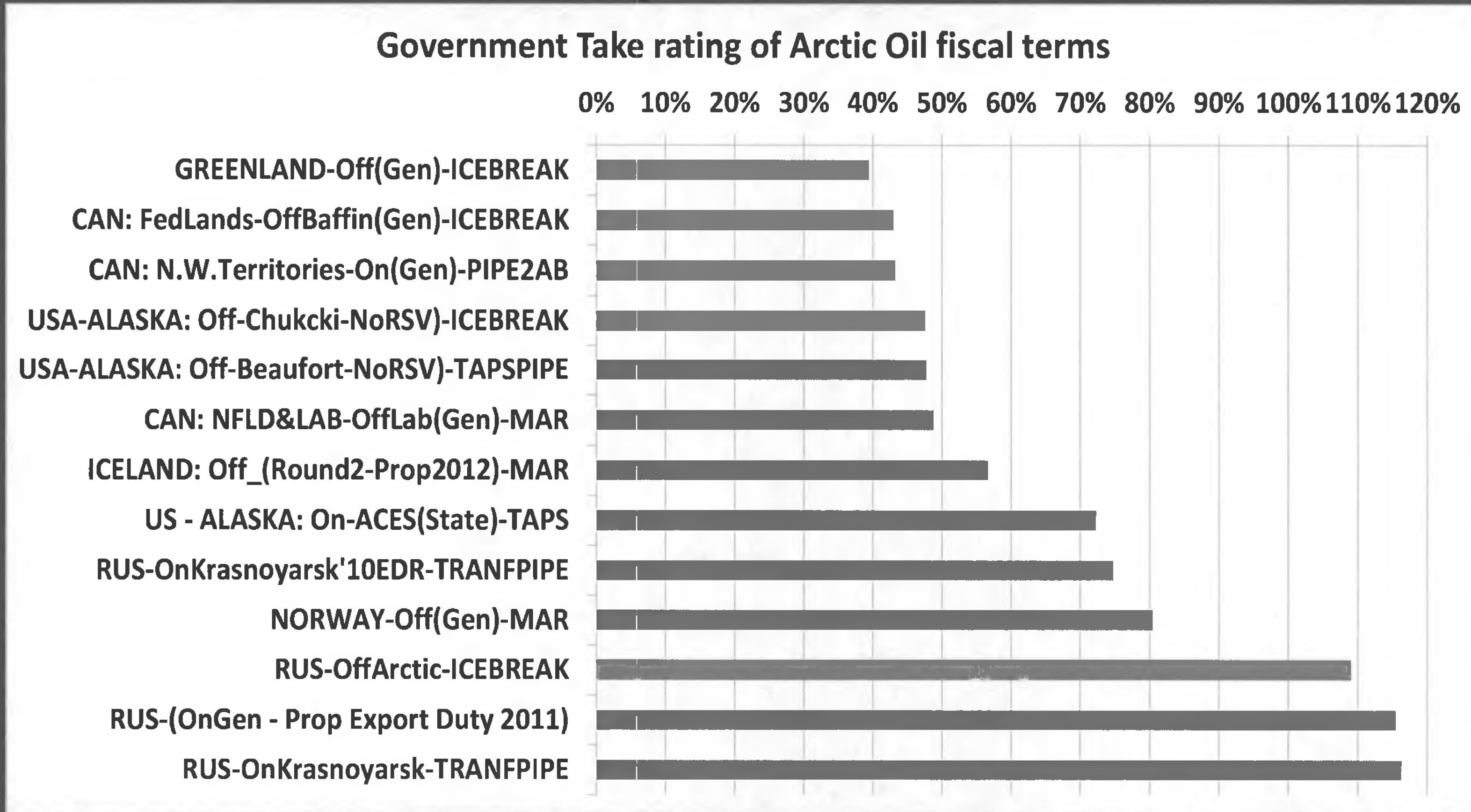
(red – no transport system available)



Alaska ACES NPV10 seems OK compared to other jurisdictions, but is somewhat meager. Note how Federal Beaufort and Chukchi acreage is attractive. Russia still very tough.

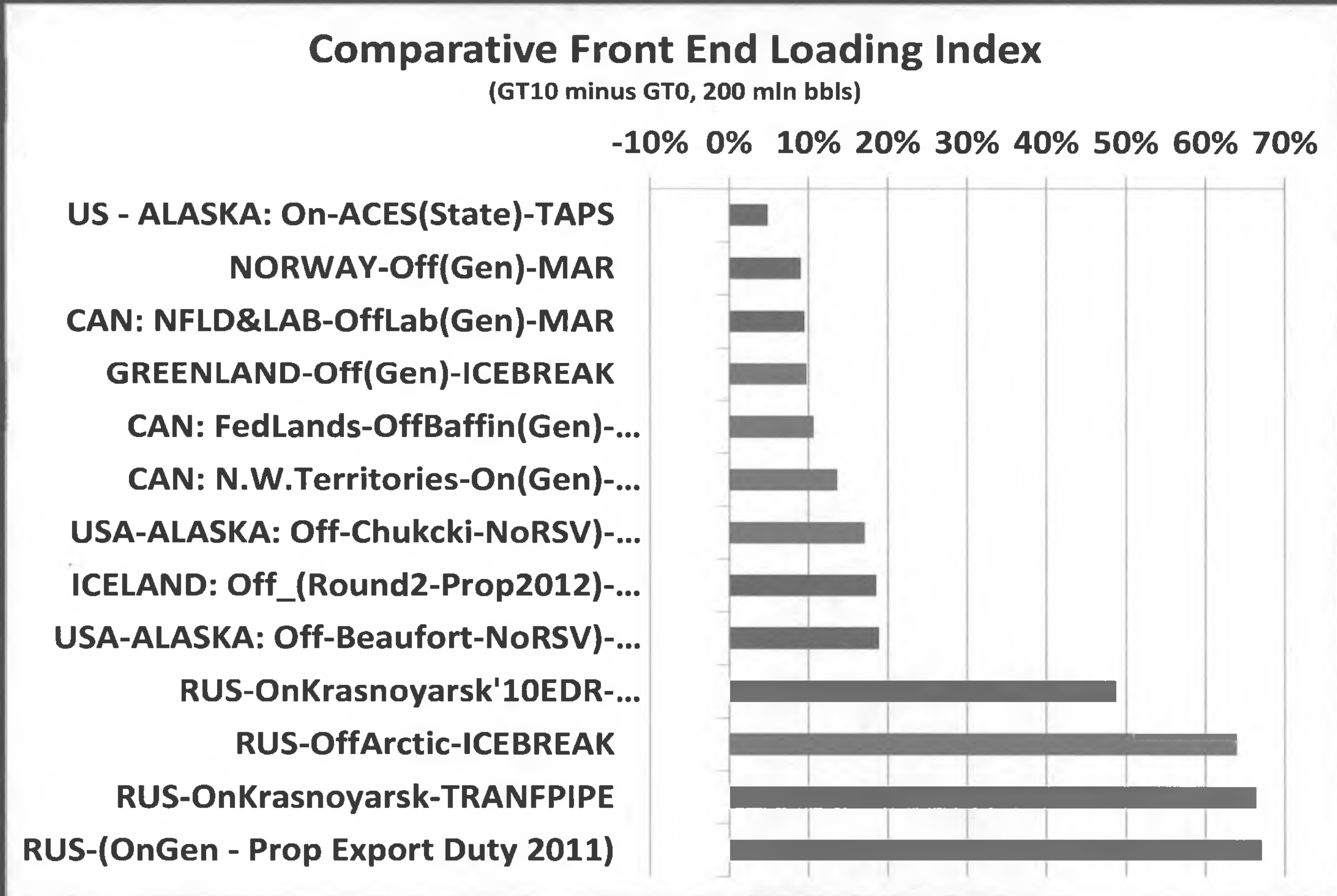
Arctic (Oil)

(red – no transport system available)



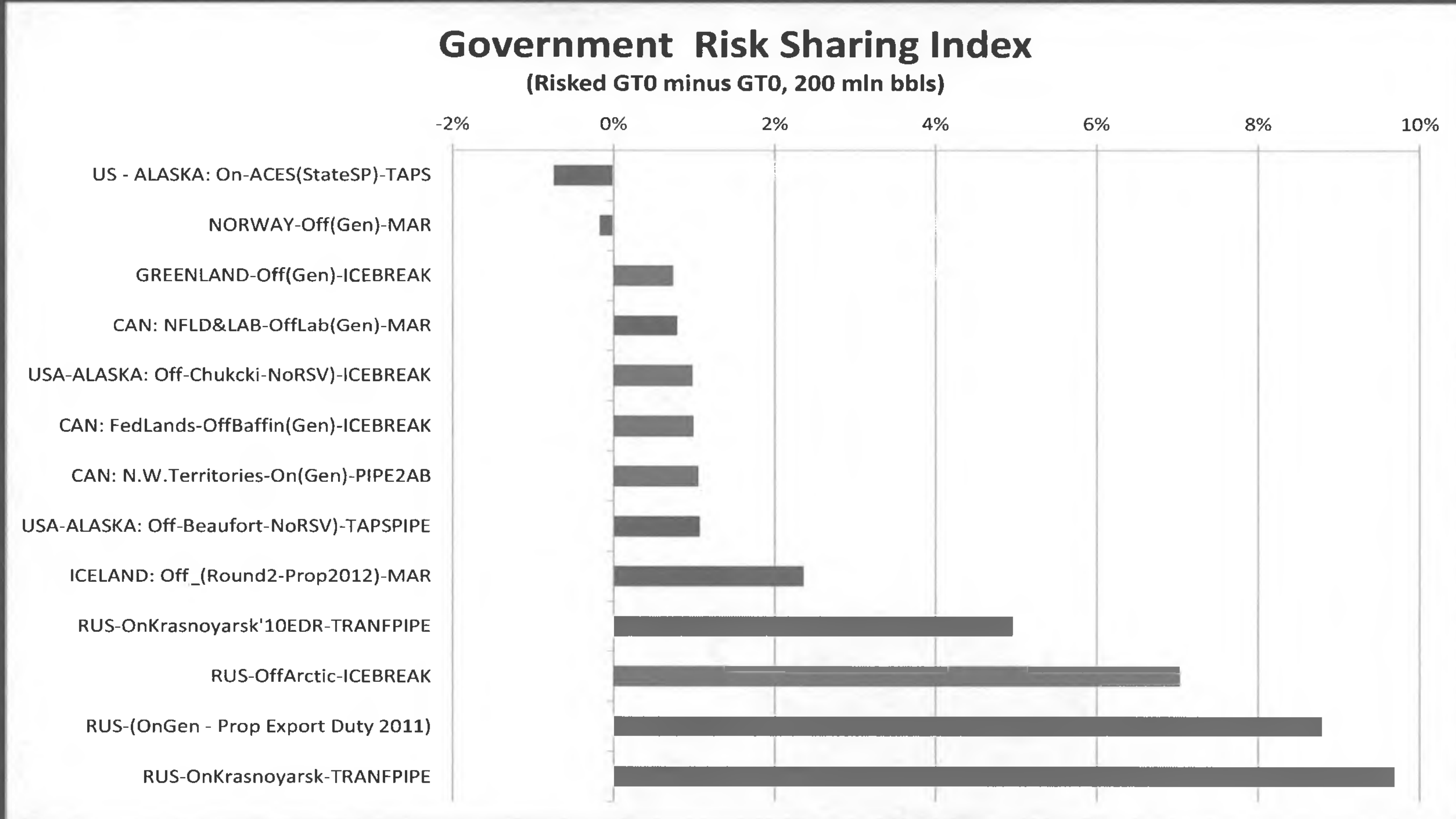
Alaska ACES government take is attractive from a government point of view and approximately at the right level for existing operations for investors. Interestingly new Russian terms compare with Alaska and Norway government take.

Arctic (Oil)



Alaska ACES government take is relatively well balanced compared to other Arctic jurisdictions in terms of the time distribution of the government take.

Arctic (Oil)



Under Alaska ACES the Alaska government is one of the few governments which shares disproportionately in the geological risk, indicating very strong support for exploration. In fact, with South Africa, Alaska rates the highest in the world in this respect.

International competition
Existing Production

The government take of about 70%-75% for Alaska is reasonable compared to the other exporters for existing operations. It is maybe slightly on the high side.

Alaska also offers a favorable time distribution of the government take and very favorable sharing of geological risk.

International competition
Existing Production

Both House Bill proposals lower the government take below 65% for existing as well as for new operations.

Although some improvements could be made in the existing terms, the results of the reports indicate that a significant lowering of government take (below the 70 – 75% range) for existing operations is not necessary.

SB 192 retains significant revenues on existing production in the 74 – 76% government take range.

International competition
New Production

The Alaska light oil production is rapidly declining at about 5% per year.

As stated earlier, there may be about one billion barrels of possible new production under more favorable fiscal terms. The production costs of this new oil is likely high on a per barrel basis.

The World Rating for Oil and Gas Terms provides information as to a reasonable government take for new production from the Deep Water report and the North American report.

Deep Water results

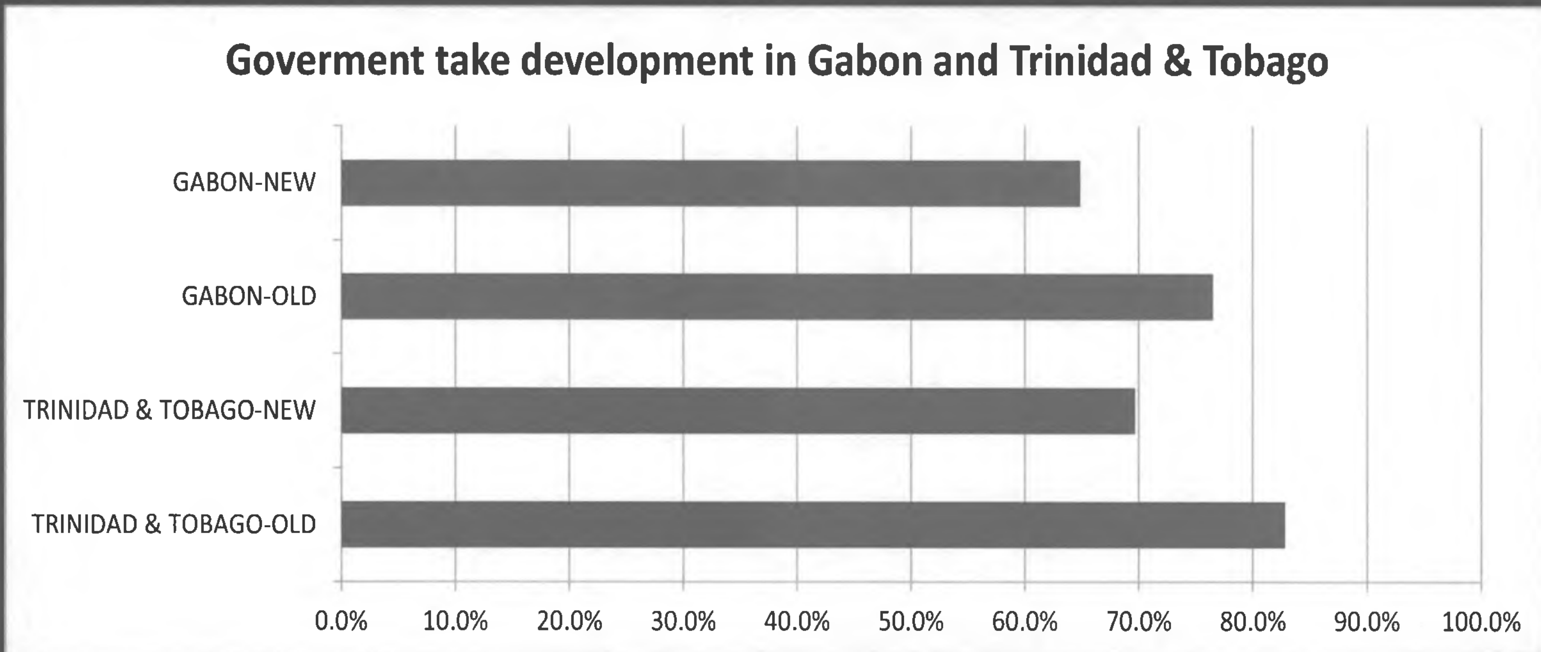
An important “peer group” for Alaska would be exporting jurisdictions with a declining conventional oil production.

There are not many jurisdictions in this group, but examples are Alberta, Gabon, Trinidad & Tobago, Malaysia.

Both Gabon and Trinidad applied about a 12 percent drop in order to attract new investment in an effort to offset declining production.

Both in Gabon and Trinidad this only applies to new blocks. Terms and conditions on old blocs remain unchanged.

Deep Water results



Gabon and Trinidad and Tobago are exporters with a declining oil production and have recently reduced their terms by about 12 percentage points.

North American Wells

Fiscal terms

Another way of competing with a fiscal system is to design the system for a wide range of economic conditions.

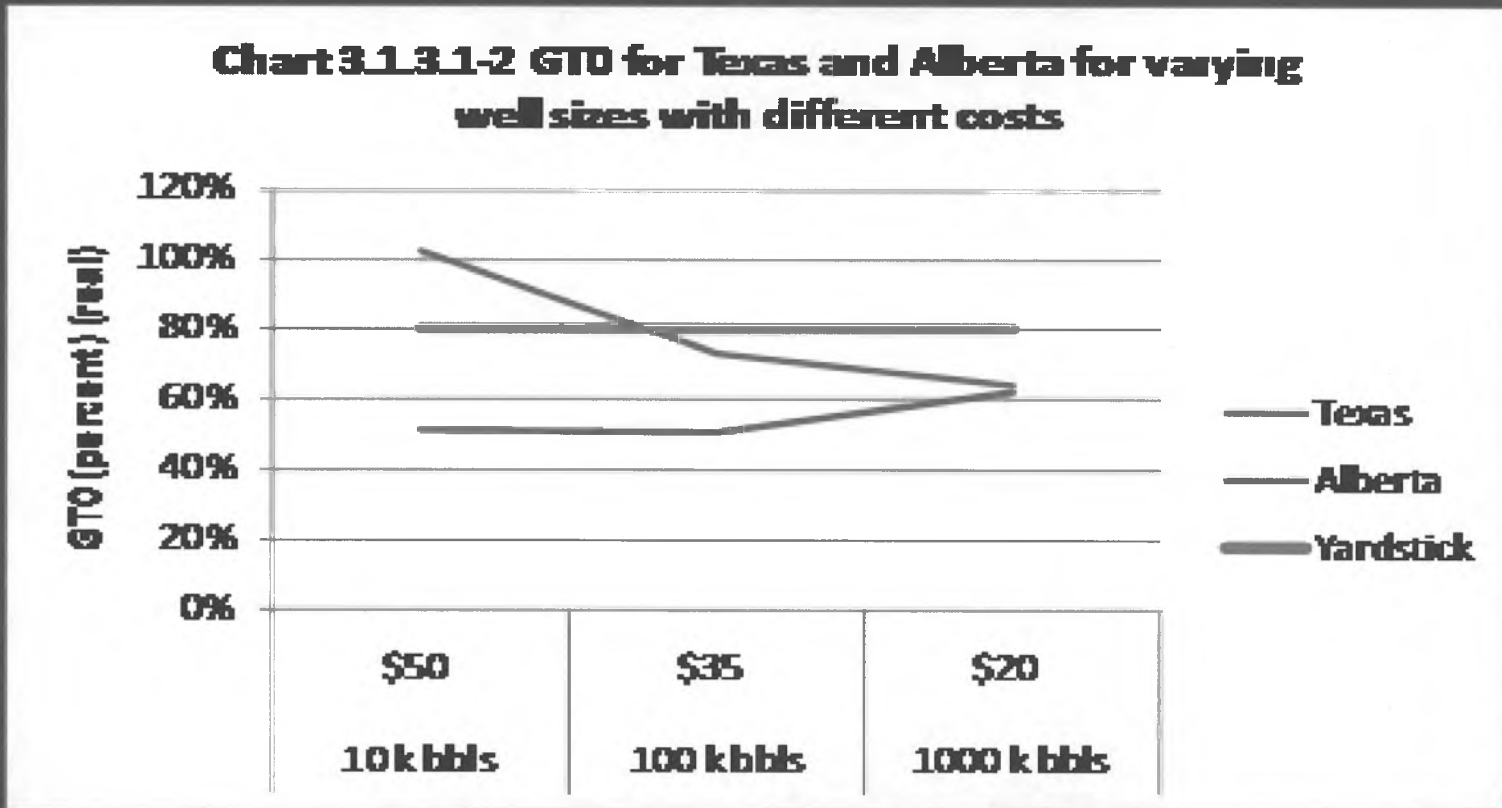
In Canada the fiscal systems consist of:

- Royalties, based usually on formulas
- Federal and provincial corporate income tax

In the United States the fiscal systems consist of:

- Royalties, usually a fixed percentage
- Federal and often state corporate income tax
- Severance (production) taxes
- Property taxes

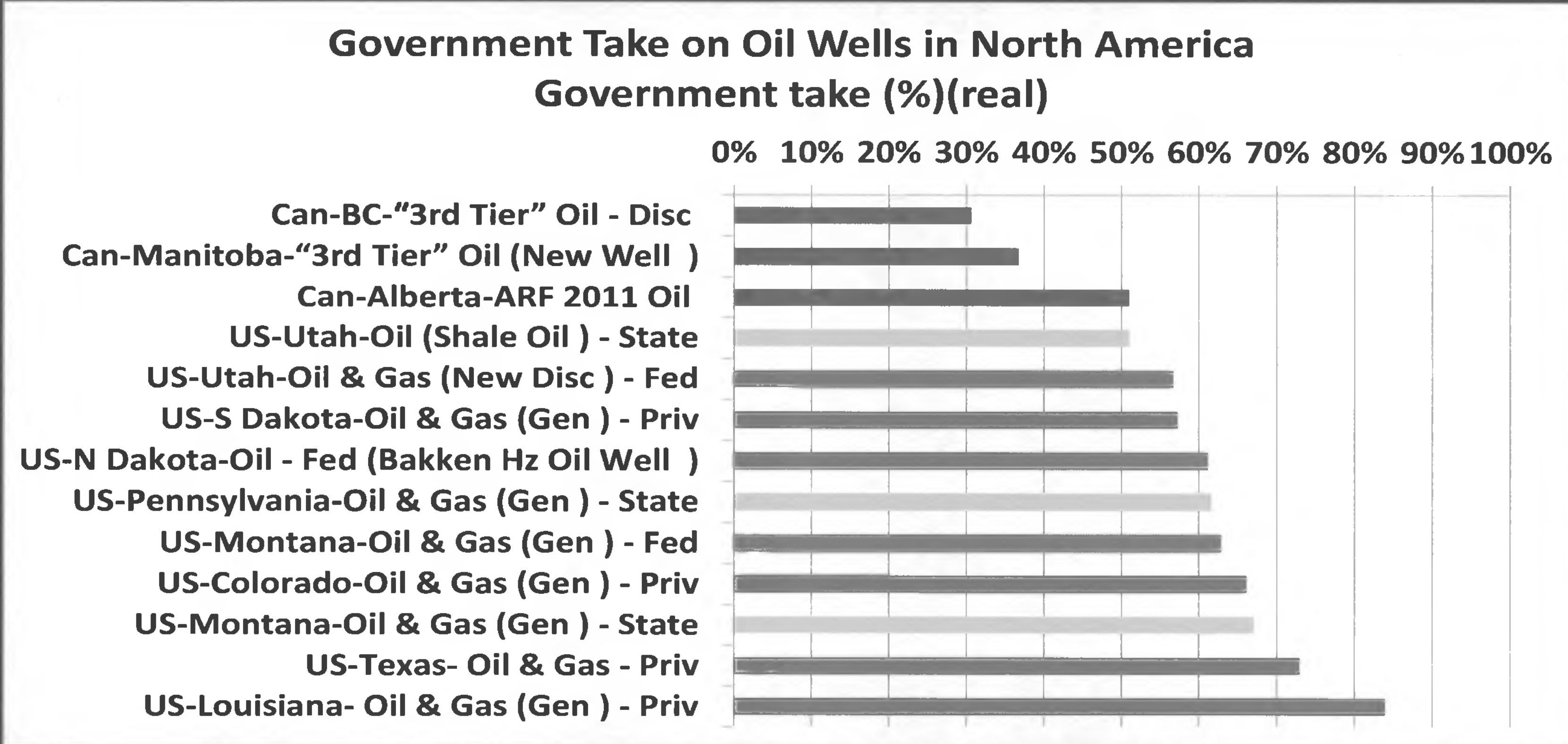
North American Wells (Oil)



In Canada the government take usually goes up and in the United States the government take goes down with higher level of production per well or with higher prices (or both).

North America Wells (Oil)

Typical Well: 100,000 barrels, $ 35 costs, $ 80 price



The government take on oil wells varies between 30% and 83% in North America and depends very much on the resource owner: Canadian provinces (blue), US Federal lands (green), US State lands (yellow) and US private lands (red)

North American Wells

Fiscal terms

Since 1997 Canada has lowered government take considerably, while the government take in the United States stayed the same.

The combined federal- provincial tax rate in Canada declined from about 45% to 25%.

Due to declining conventional oil production, the major Canadian oil producing provinces promote strongly new activity with more attractive royalties formulas which compete over a wider cost range.

International competition
New Production

International examples indicate that dropping the government take by about 10% for new production is reasonable once the jurisdiction faces a declining production.

The experience of Alberta, which faces a declining conventional oil production, indicates that designing lower fiscal terms in the 50 to 65% range of government take for higher cost resources is a viable strategy to increase investment.

International competition
New Production

The 60 – 65% government take for more costly "new" light oil resources as proposed in HB 110 and HB 17 is a reasonable level from an international perspective.

SB 192 terms are to tough to encourage costly new production.

International competition
Heavy Oil

Heavy Oil can be separated in two groups:

- Heavy Oil: 15 – 22 degrees API. This oil can typically be produced with conventional production methods, since oil flows to the wells. The oil can also be transported by pipeline and in marine tankers
- Ultra Heavy Oil or Bitumen: 8 – 15 degrees API. This oil which needs to be produced with special production methods. The oil cannot be transported by pipeline or marine tanker. It needs to be mixed with condensate or it needs to be converted in an upgrader to synthetic crude oil.

Heavy Oil

Alaska has significant heavy oil potential, probably in excess of 5 billion barrels. Alaska heavy oils range from 10 to 22 degrees API.

The most important deposits are:

- Heavy Oil - 15 – 22 degrees API – West Sak, Schrader Bluff, Orion, Polaris, Nikaitchuq.
- Ultra Heavy Oil – 10 – 15 degrees API – Ugnu

Separate fiscal terms are required for these two groups.

Alberta Oil Sands

The most important competitor for heavy oils in North America is Alberta with the oil sand deposits which may well contain in excess of 500 billion barrels of recoverable oil.

For Alberta oil sands, at 10 degrees API, government takes are in the range of 43% - 55% depending on the oil price.

In order to compete the government take for ultra heavy oil in Alaska may has to be similar to Alberta.

For heavy oil the terms could be between ultra heavy oil and new light oil production.

International competition
Heavy Oil

In order to be competitive Alaska would have to offer the following government takes for heavy oil:

- Heavy oil: 55 – 60%
- Ultra heavy Oil: 45 – 55%

International Competition
Shale Oil

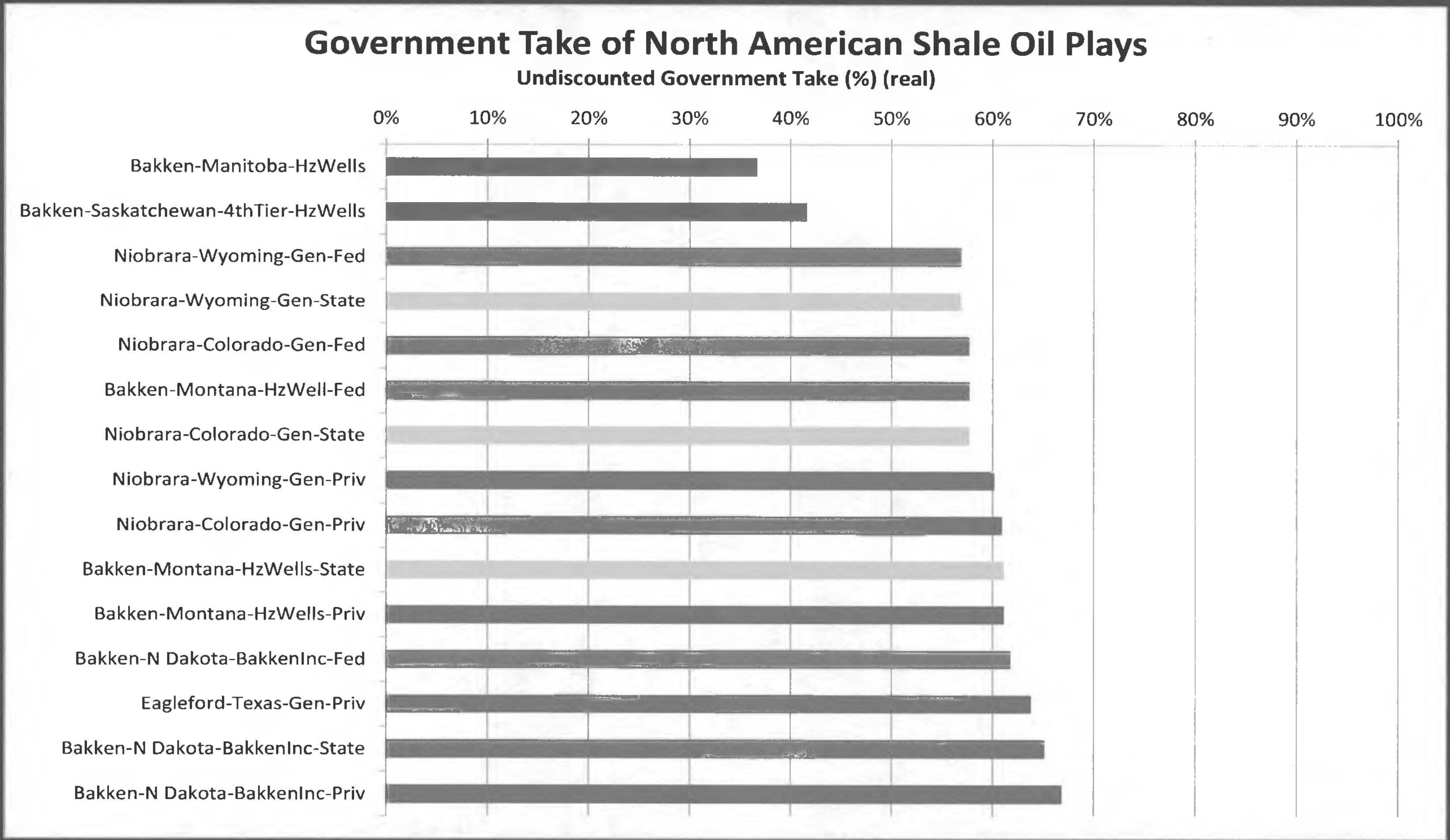
At this time it is not known whether shale oil production will be possible in Alaska. Pilot projects will be required to identify whether reservoir characteristics are of a nature that would permit fracking and would result in a sufficient flow of oil to make shale oil economic.

If shale oil would be economic, the resources may be quite considerable, for instance, in excess of several billion barrels. It is therefore very important for Alaska to identify whether shale oil is economic or not.

New shale oil developments will likely require major new infrastructure. The Federal permitting of this infrastructure and related environmental concerns could be a major stumbling block.

North American Wells (Shale Oil)

Government Take



Shale Oil plays in the United States are typically subject to a government take of about 60% and in Canada 40%.

International competition
Shale Oil

Alaska may have significant shale oil potential.

However, given the fact that the formations are relatively deep, operating conditions are severe and infrastructure is lacking, the costs per barrel would very likely be higher than in Canada and the Lower 48 States.

It is unlikely that large capital investments can be attracted unless the government take is in the 45 – 55% range.

International competition
Natural Gas

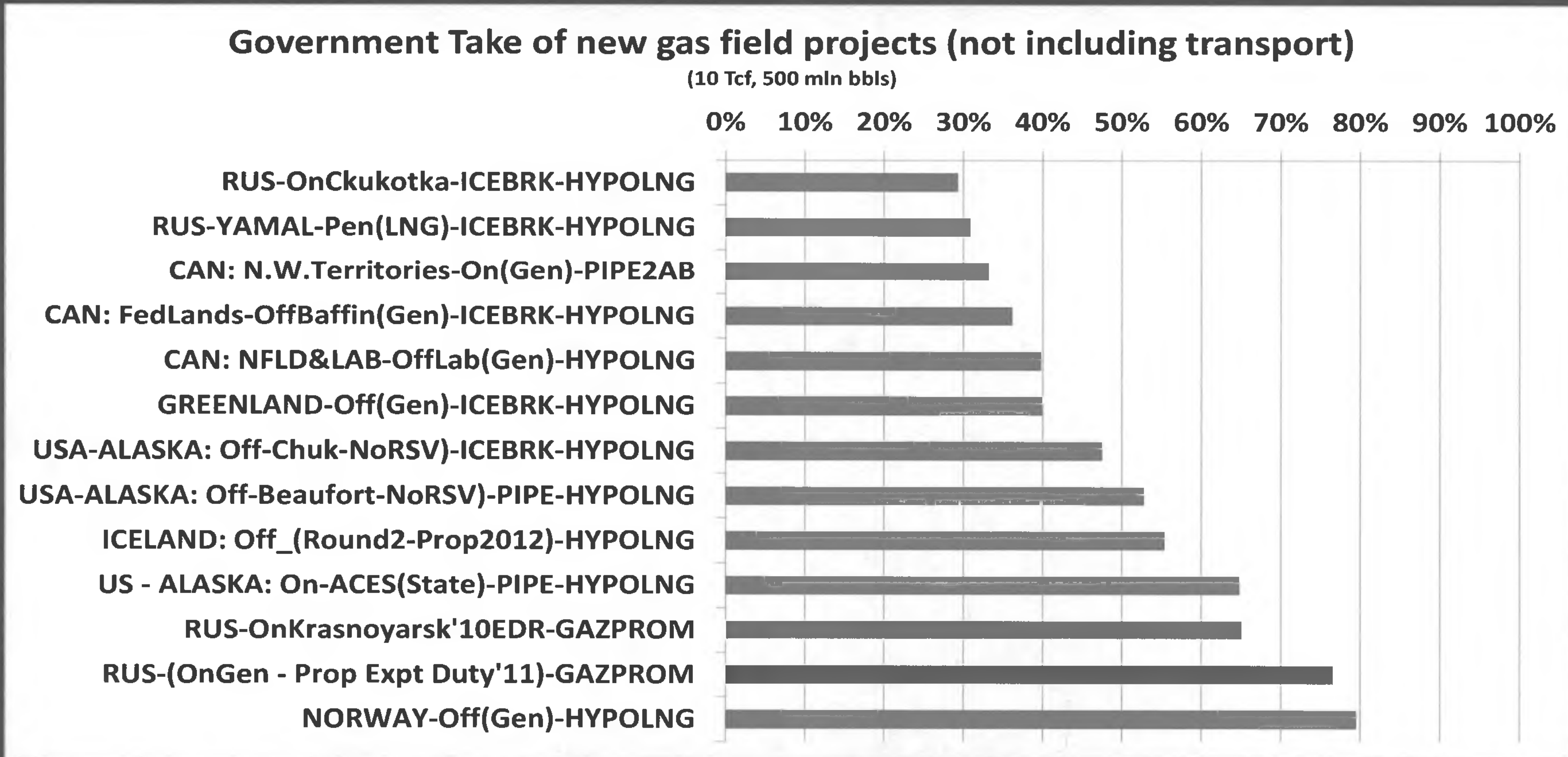
The Pacific market is very competitive

Current major *new* LNG suppliers in the Pacific LNG market are Australia and Papua New Guinea. Government take is less than 50% for dry gas.

Offshore and onshore conventional gas production in China is also significant. Chinese owned companies often benefit from a system where China does not participate on a carried basis, resulting in a government take of 42% for dry gas.

In addition to the conventional gas resources, China has in situ 1300 Tcf of coal bed methane gas and 1100 Tcf of shale gas.

Arctic (Gas)



Alaska government take for gas aimed at Pacific LNG markets is about 25% to 30% too high compared to strong Russian competition.

International competition
Natural Gas

Given the strong challenges of Russia, Australia, PNG and Chinese producers themselves, Alaska would have to offer a government take in the range of 45-55% in order to be competitive for the production of gas from new gas fields such as Point Thomson.

For gas from Prudhoe Bay, whereby most of the production costs have already been absorbed by oil production, a government take in the range of 55 – 60% may be appropriate.

International competition
Summary

In order to be competitive, Alaska needs to develop a fiscal system that offers the following government takes for the various resources:

• Existing light oil production:	70 – 75%
• New light oil production:	60 – 65%
• Heavy Oil:	55 – 60%
• Ultra Heavy Oil:	45 – 55%
• Shale Oil:	45 – 55%
• Natural Gas – new gas fields:	45 – 55%
• Natural Gas – Prudhoe Bay:	55 – 60%

SESSION
3

Session 3

Proposed terms for existing and new light oil

Overall framework for a new PPT

A new PPT should preferably structured in such a manner that it deals with the following important issues:

1. The current ACES system has serious deficiencies. A new PPT should remove these problems.
2. A new “architecture” for the PPT needs to be created to permit a greater variety of terms for the different oil and gas resources.
3. The system should be made simpler.

Complexity

An important other issue is complexity.

The production tax is far too complex - The current complexity of the production tax is a strong disincentive for investment.

It can be strongly recommended to review the tax to see what changes can be made to reduce complexity.

Deficiencies in the current ACES system

The current ACES system has five main deficiencies:

1. **PPT tax rates up to 75% in addition to 41% corporate income tax are too high to stimulate efficiency in operations.**
2. **The price based sliding scales and result in a situation where under high prices the producer is actually better off with a lower price.**
3. **The excessive tax credits result in a situation where Alaska may pay all of the costs of a well.**
4. **The BOE concept results in a situation where new gas production could lead to massive losses of oil based revenues.**
5. **Under marginal circumstances the ACES system actually creates a negative PPT, in other words the government will loose PPT on certain fields.**

Deficiencies
Excessive Tax rates

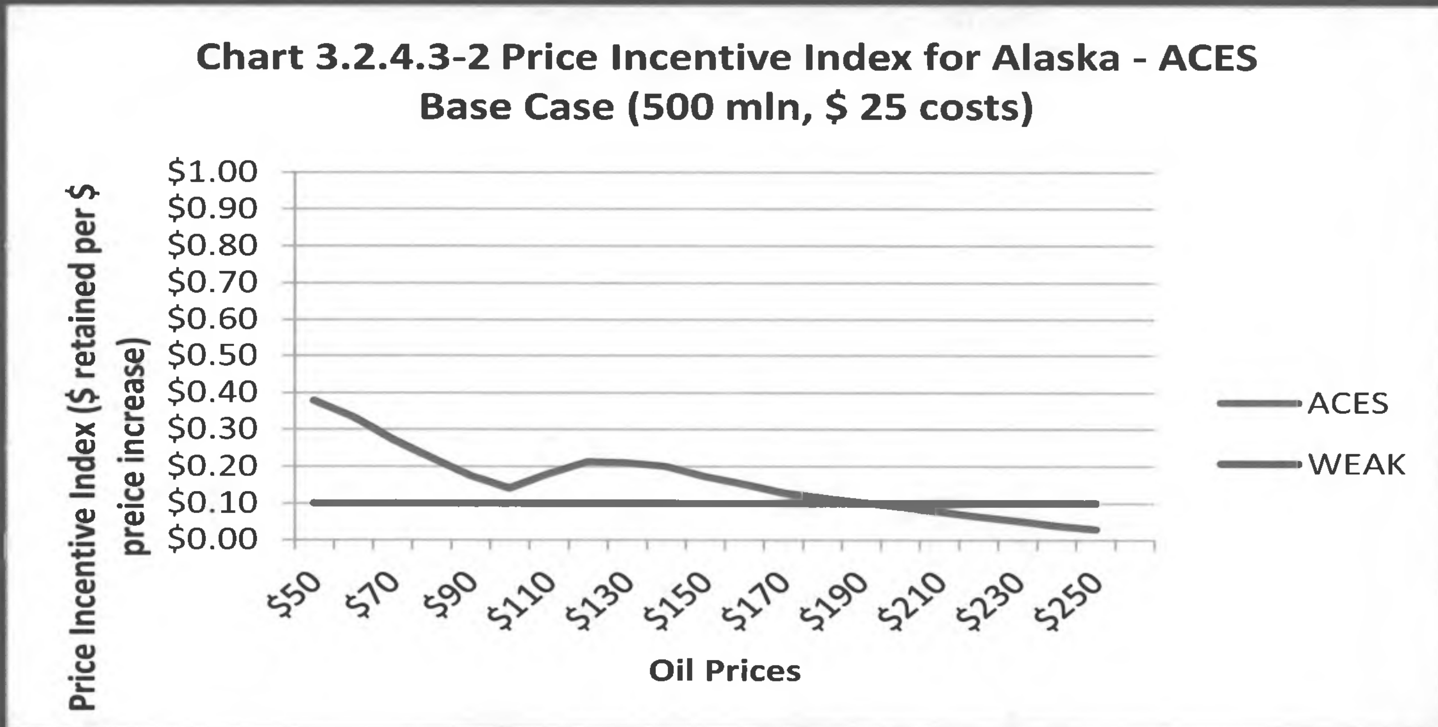
The combination of the maximum ACES rate of 75% and the normal corporate income tax rate (state and federal) of 41% creates a combined tax rate of 85.25% under high prices.

Such an excessive tax rate reduces significantly the incentive for companies to be efficient because they can only keep $ 0.1475 of every dollar saved. This means the cost savings index is only 14.75%.

This is well below the cost savings index of most countries. Usually, it is recommended to have a cost savings index well over 20%.

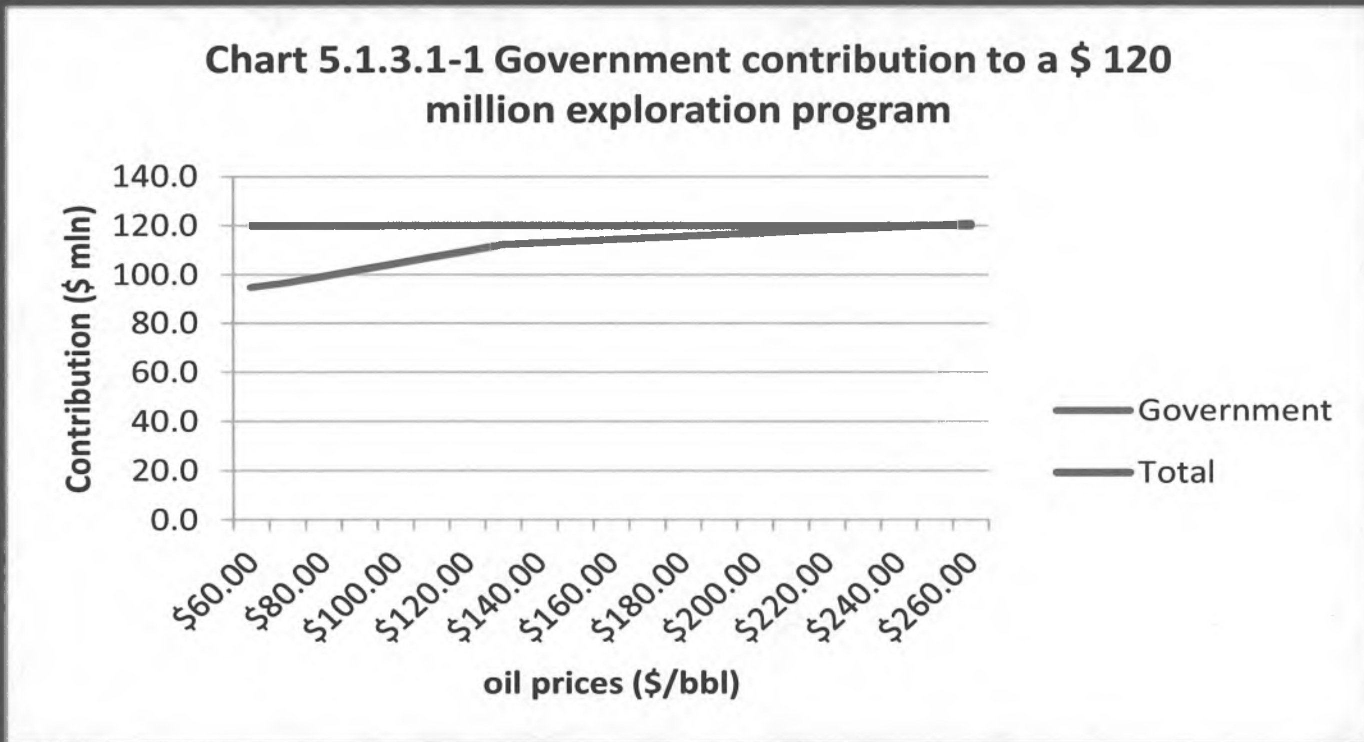
It should be noted that the combined tax rate of 85.25% is in addition to the regular royalties.

Deficiencies
Excessive price progressivity



For ACES, at high prices, the combined tax rate becomes so high that there is the price incentive performance becomes very weak by international standards. This leads to lack of interest in achieving the highest prices on an arms length basis and strong incentives to try to "transfer price".

Deficiencies
Excessive exploration support



Existing producers under ACES are entitled to the 40% tax credit as well as all normal deductions of the exploration expenditures. This means that at $ 111 per barrel, the Alaska contributes 90% of the exploration costs. At $ 245 per barrel Alaska contributes 100%.

Deficiencies

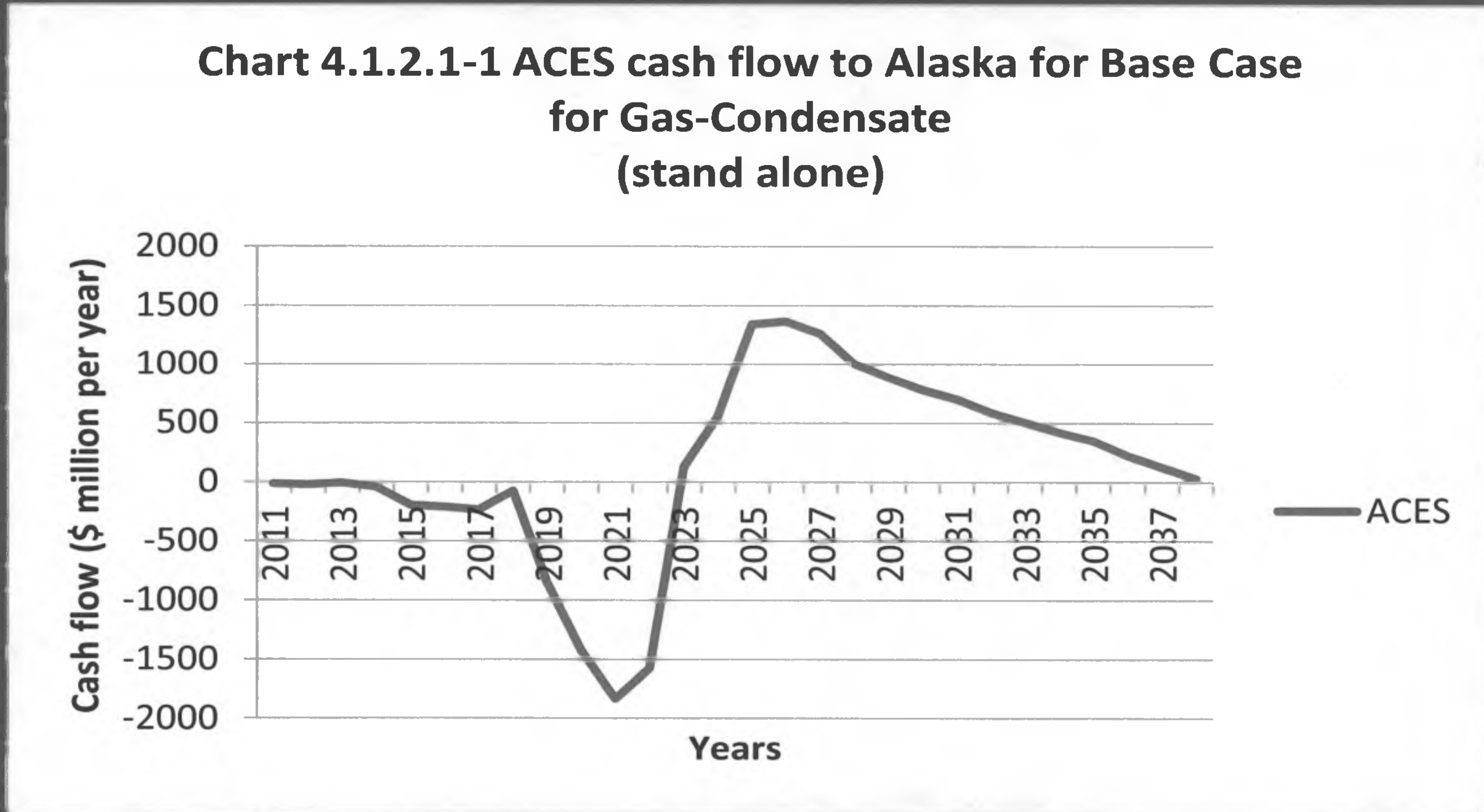
Nonsensical cross subsidization of gas

Table 5.1.3.1-1 Incremental Gas Economics for ACES in Alaska (Country Incremental, Real)

	Oil only	Oil + Gas	Incremental
Oil production (mln bbls)	500	500	0
Gas production (Bcf)	0	10000	10000
Oil price ($/bbl) North Slope	100	100	100
Gas Price ($/MMBtu) North Slope		1.0	1.0
Gross Revenues ($ mln)	50000	60000	10000
Total Production (Mln BOE)	500	2167	1667
Capital Expenditures ($ mln)	7500	11000	3500
Operating Expenditures ($ mln)	5000	7500	2500
Divisible Income ($ mln)	37500	41500	4000
Royalties ($ mln)	6250	7500	1250
Property Tax, other	852	1504	652
Production Tax Value	30398	32496	2098
Production Tax Value per BOE	60.80	15.00	-46
PPT ($ mln)	15186	6900	-8286
Corp Income Tax (State) ($ mln)	1466	2474	1008
Total State Revenues ($ mln)	23754	18378	-5376
Corporate Income Tax (Fed) ($ mln)	4942	8340	3398
Total Government Revenues ($ mln)	28696	26719	-1977
Undiscounted Government Take	76.50%	64.40%	-49.3%
IRR	21.10%	19.30%	17.3%

The BOE concept would result in massive government revenue losses on oil production if incrementally also gas would be developed. This does not make any sense. It is clear that Alaska would not accept such unnecessary losses. This in turn impedes gas project development.

Deficiencies
Negative PPT



By definition, for a marginal project the total negative ACES cash flow to government as a result of tax credits and tax deductions becomes (almost) identical to the positive cash flow. In other words the net government receipts are low or even negative.

Deficiencies
Negative PPT

With the existence of a tax credit, there are always economic conditions under which the government may loose more in credits and deductions than it receives in income.

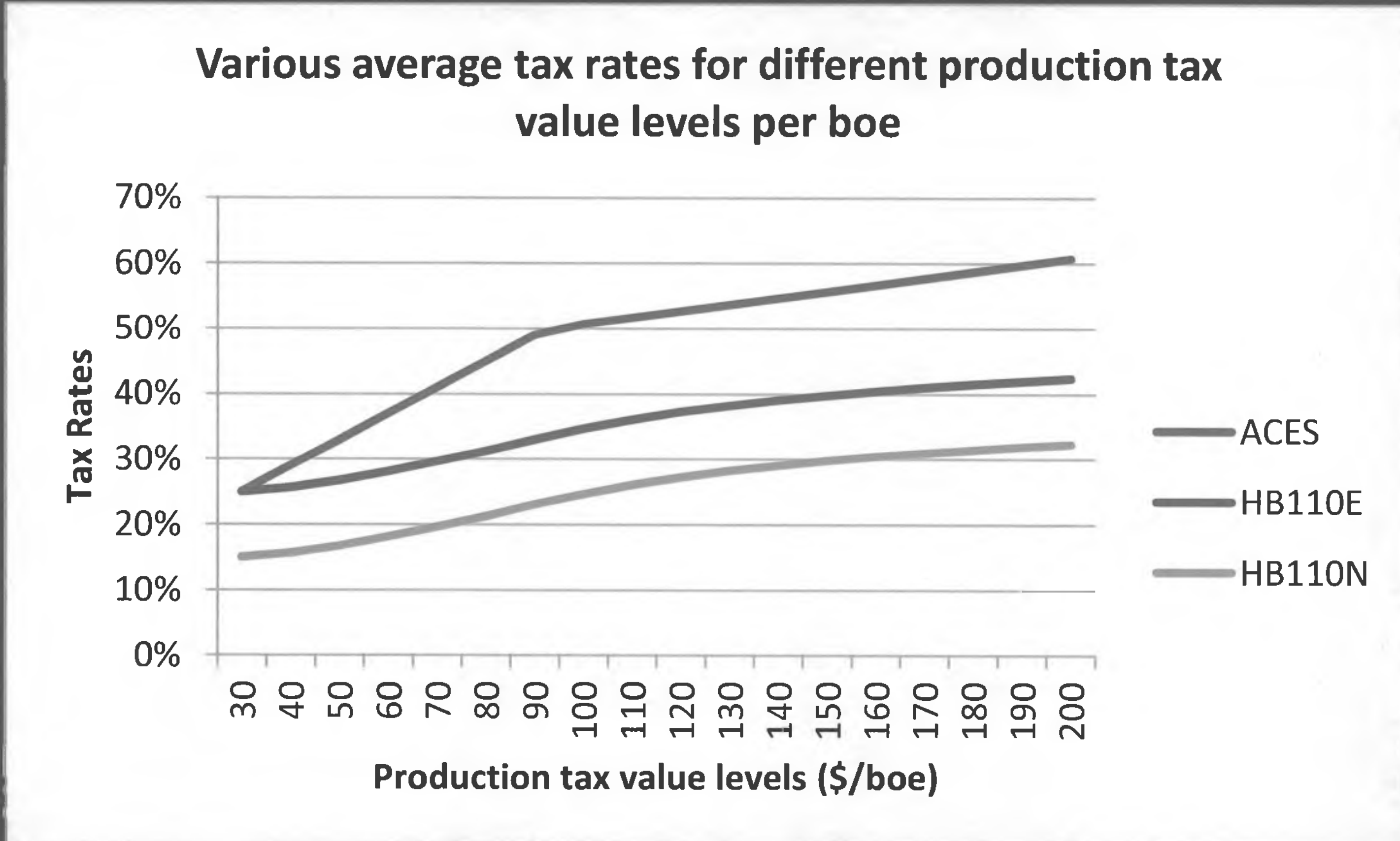
However, this effect should be minimized in the fiscal design. This is not done under ACES.

Proposals for light oil

Proposals for light oil production will be discussed first, based on this discussion the variation for other resources can be introduced

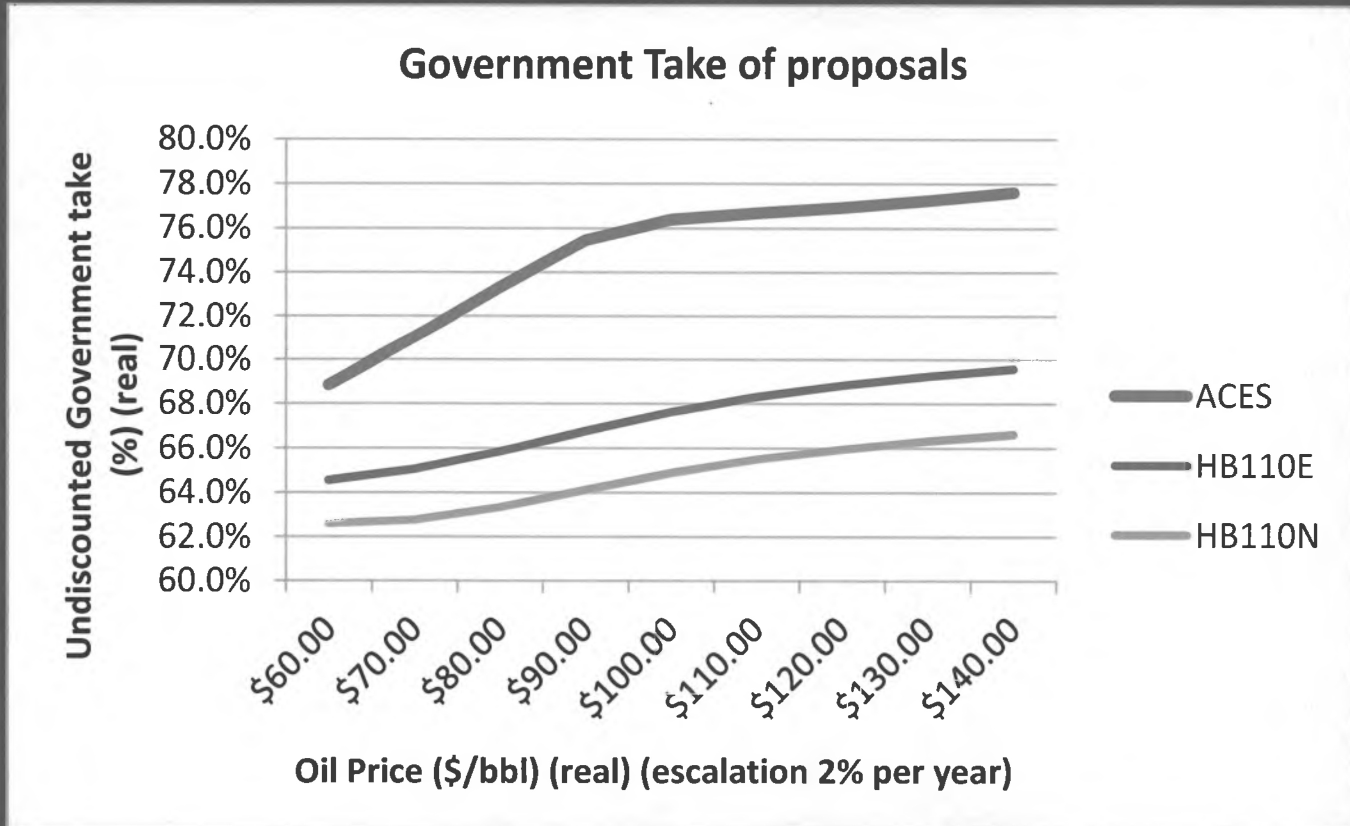
HB 110 has been introduced modify ACES.

Proposals for light oil: HB110Analysis: PPT rates



The bracketing procedure creates a significant lowering of the average PPT rates. The HB 110 N rates apply only for 7 years from the start of production for new production.

Proposals for light oil: HB110 Analysis: Government take



At $ 100 per barrel, the government take of ACES would be 76.4%, HB 110 (Existing) 67.6% and HB 110 (New) 64.9%

HB 110: Existing Production

The HB 110 proposal is relatively complex. It is based on so-called "bracketing". Following is the scale:

< $ 30.00	25.0%
< $ 42.50	27.5%
< $ 55.00	32.5%
< $ 67.50	37.5%
< $ 80.00	42.5%
< $ 92.50	47.5%
> $ 92.50	50%

Bracketing means that the final average rate is based on the weighted average of all the brackets. This means the rate will never be 50%.

HB 110: New production

For new production the rates will be lowered by 10% for the first 7 years of production.

This means that new production has to be "ring fenced". All production and all revenues and costs will have to be allocated to "existing" and to "new" production.

This is complex from an administrative point of view.

Deficiencies in HB 110

HB 110 deals with only two of the deficiencies of ACES:

1. **PPT tax rates up to 75% in addition to 41% corporate income tax are too high to stimulate efficiency in operations.**
2. **The price based sliding scales and result in a situation where under high prices the producer is actually better off with a lower price.**
3. **The excessive tax credits result in a situation where Alaska may pay all of the costs of a well.**
4. **The BOE concept results in a situation where new gas production could lead to massive losses of oil based revenues.**
5. **Under marginal circumstances the ACES system actually creates a negative PPT, in other words the government will loose PPT on certain fields.**

Deficiencies in HB 110

In addition HB 110 creates an entirely new problem.

Specifying different tax rates for Existing and New Production requires tax payers to submit different tax returns for these two classes of production. This is called ring fencing.

This in turn means that all revenues and costs need to be allocated to "existing" and "new". This is complex to administer and could lead to significant revenue losses for the State. HB 110 does not specify how this process would have to take place.

HB 110 is therefore not a viable alternative to ACES.

BOE complications

An important drawback of ACES is the BOE problem.

This means that in case major oil companies would propose a new Alaska LNG export project to the Pacific, the entire fiscal system has to be revised again. This is an unnecessary obstacle to the introduction of a new gas project.

It is therefore essential that in any revision of ACES this problem is also dealt with in advance. This would permit to add gas terms to the package later (or immediately) without having to change oil terms again.

PVM Proposal: Existing and New Production

The PVM Proposal is going further than merely creating new levels of government take for existing and new production. The proposal also:

- **Creates a new "architecture" to which terms for heavy oil , shale oil and natural gas can be easily added, and**
- **Resolves <u>all</u> the deficiencies associated with ACES.**

PVM Proposal for New Production

At $ 100 per barrel, the HB 110 for New Production is equal to a much simpler concept, which is:

- 25% flat PPT
- 20% tax credit, plus a
- 2.25% severance feature.

The severance tax feature is no different from the way the severance tax used to be calculated in Alaska. The severance tax is a percentage of the value of the gross production less the royalty. For instance, with a royalty of 12.5% and an oil price of $ 100, a 2.25% severance feature would be equal to:

2.25% * 87.5% * $ 100 = $ 1.96875 per barrel

PVM Proposal for New Production

In order to make the severance feature match the government take of HB 110 for new production, the following price sensitive sliding scale is proposed:

- The sliding scale starts at an oil price of $ 60 per barrel,
- Between an oil price of $ 60 and $ 180 per barrel, the severance feature would increase with 0.05% per dollar increase, reaching a value of 6% at $ 180 per barrel
- Thereafter, the sliding scale would increase 0.1% in order to reach a maximum of 15% at $ 270 per barrel.

New "architecture"

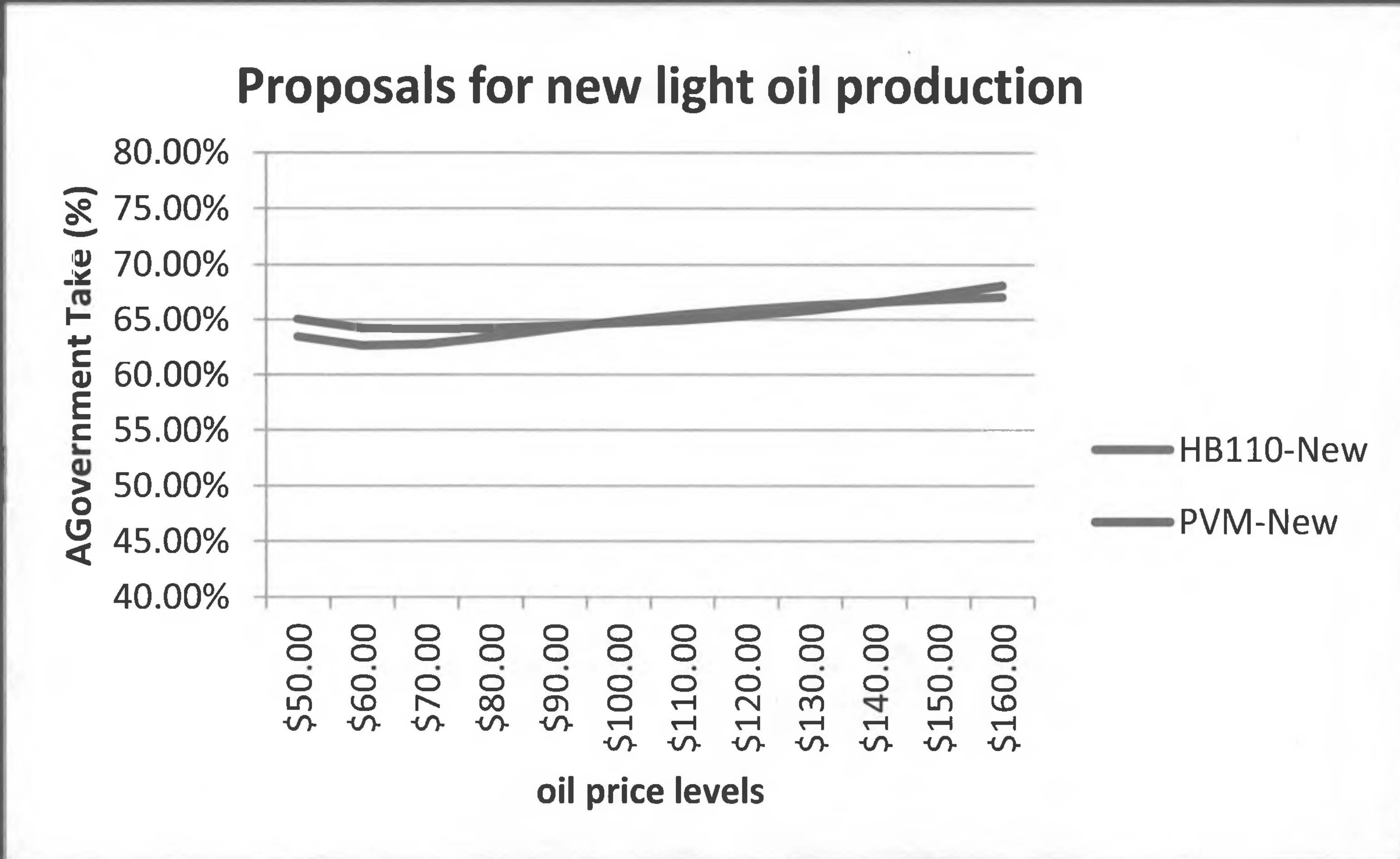
The PVM Proposal creates a new "architecture" which is not BOE based. The severance feature is simply gross revenue based for oil (after the royalty) and therefore it does not apply to gas.

As a result PPT revenues from oil remain the same if also gas is produced. This solves a major deficiency of ACES.

Also excessive exploration support is eliminated because:

- It is proposed to limit tax credits to 20% and not increase tax credits to 40% for certain exploration expenditures, and
- By creating a maximum PPT tax rate of 25% and corporate income tax rate of 41.1%, for a total maximum of 55.75%.

PVM Proposal for New Production



The PVM proposal results in almost exactly the same government take as HB 110 for new production for the entire price range from \$ 60 to \$ 160.

PVM Proposal for New Production

The main advantages of the PVM Proposal are:

- Much easier to administer
- Can be consolidated with existing production, so no need for ring fencing
- An "architecture" which permits other resources to be added to the fiscal terms
- No excessive tax rates, in fact a combined rate of 55.75%.
- No excessive price progressivity
- No excessive exploration support
- No nonsensical cross subsidization of gas based on BOE values
- Reduced negative PPT characteristics

Alternative Proposal for Existing Production

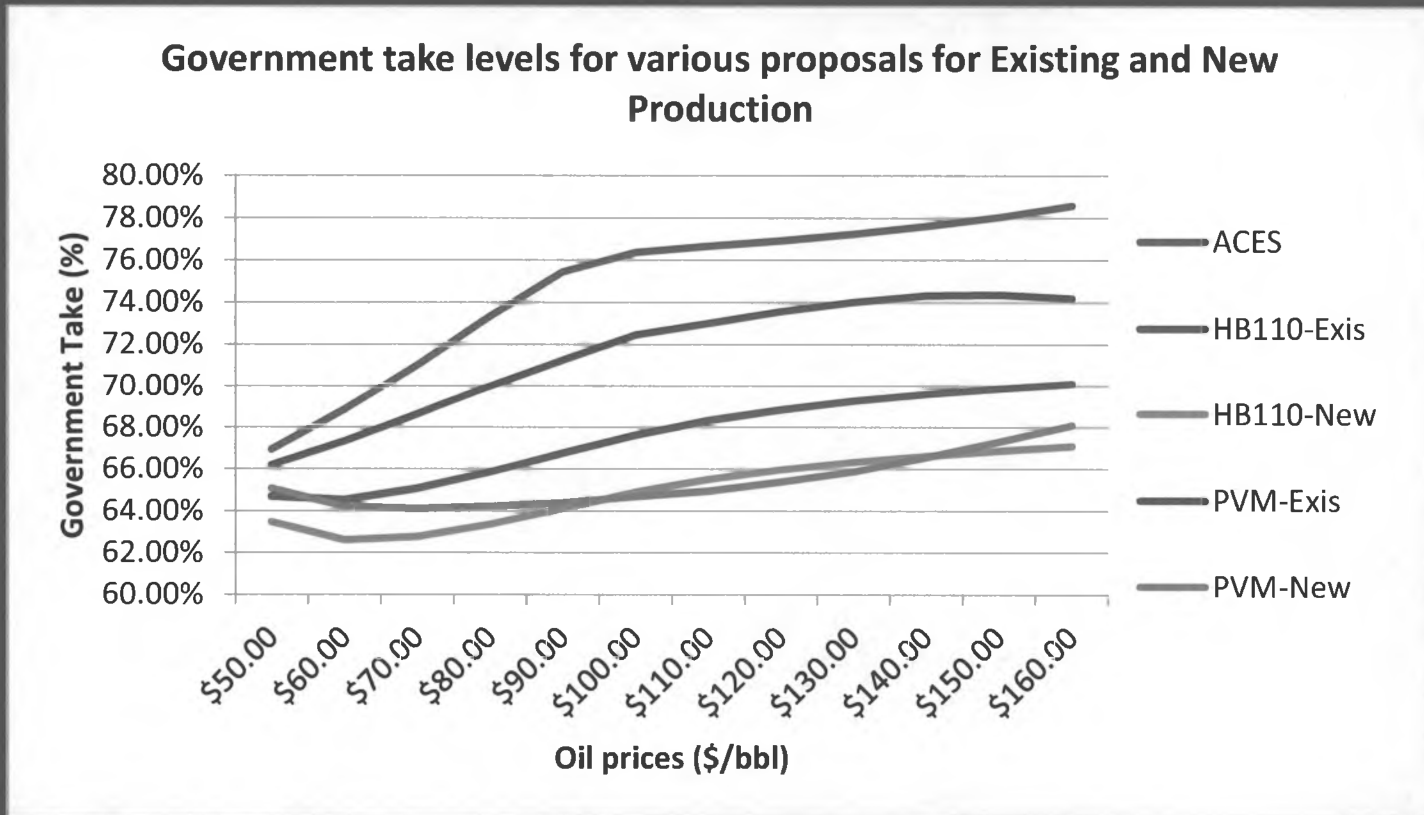
It is now easy to add a proposal for existing production.

Terms for existing production could be close to the current government take levels of ACES. It is not necessary to give up significant revenues.

Existing production terms could also be based on:

- A flat 25% PPT
- 20% tax credits
- A severance feature starting a $ 60 with 0.2% increases per dollar increase in price up to $ 130 per barrel and from there 0.1% up to a maximum of 20%.

All Proposals for Existing and New Production



The PVM Proposal for existing production would be result in a much higher government take than HB 110 for existing production. The PVM proposal for new production is about equal to HB 110 for new production.

Old and New Production

HB 110 does not determine how to distinguish between new oil and existing oil. It is proposed to use the following methods:

Decline curve method.

With the decline curve method Alaska would establish the average production for each company in 2011. An exponential decline curve would be established per company. For instance one could use 6% per year for all companies for light production. Any production over the decline curve per company would qualify as "new".

The main advantage of the method is that is goes to the essence of the problem in Alaska. It also strongly stimulates investment by new companies. It is easy to administer. The main disadvantage is that existing companies may be rather differently affected. Therefore, this method needs to be complemented with other options.

Old and New Production

New non-producing lease method.

Another simple method is to consider "new" production, as production from leases which were not in production prior to December 31, 2011.

The main advantage of the method is that it is easy to administer and is a well established international practice. It would encourage new investment in new leases with fields which maybe more expensive.

New approved program method.

In principle it is possible for existing producers to make specific comprehensive proposals to the Alaska Government for new investments that will increase production from existing fields. This would relate to programs that would be in excess of ongoing investments.

Old and New Production

These programs could include:

- The drilling of new more expensive deeper or shallower reservoirs,
- Enhanced recovery projects
- Horizontal well drilling projects in thin reservoirs,
- Extensive new infill drilling beyond current rates, or
- Any application of new technology.

DNR would establish the base line production above which production would be considered "new" on a year by year basis, based on reservoir and other studies.

Old and New Production Summary

"New" light oil production (higher than 22 degrees API) would be:

- the higher off:
  - New production from programs specifically approved by the administration, and
  - New production above a pre-determined decline curve for light oil production of 6%.
- production from non-producing leases.

Based on these definitions it is easy to apply the differences in the severance features between existing and new production.

SESSION
4

Session 4

Proposed terms for heavy oil, shale oil and natural gas

Terms for Heavy Oil
General

Major heavy oil development may face significant challenges, since a mixture in the TAPS line of too much heavy oil may cause operational problems.

Major heavy oil development may have to be stimulated in conjunction with expansion of light oil projects, with possible condensate and liquid stripping projects from gas fields (such as Point Thomson) and/or a construction of GTL plant(s) (with subsequent cracking of waxy components).

Alternatively, one could build upgraders fueled by cheap natural gas on the North Slope in order to upgrade heavy crudes to lighter crudes. It is not known at this time whether construction of upgraders would be a viable possibility.

Terms for Heavy Oil
Proposed Terms

With the new "architecture" in place for light oil production it is now easy to add terms for heavy oil.

At this point in time only 40,000 bopd of heavy oil is being produced.

It is not recommended to divide heavy oil in "existing" and "new".

Firstly, because it would be difficult to determine a fair decline curve at this time.

Secondly, the volume is too small to make unnecessary complications in the fiscal terms.

Terms for Heavy Oil
Proposed Terms

For heavy oil the fiscal system could be based on the same PPT as follows:

- **PPT based on a flat rate of 25%**
- **20% tax credit**
- **A 15% allowance based on the gross value of the heavy oil as special deduction for the determination of the PPT**
- **A severance feature starting at $ 160 per barrel at 0.05% per barrel increase up to $ 200 and thereafter 0.1% per barrel increase up to a maximum of 10%**
- **A floor price for the purpose of calculating PPT of $ 55 per barrel escalated with inflation.**

Terms for Ultra Heavy Oil
Proposed Terms

For heavy oil the fiscal system could be based on the same PPT as follows:

- PPT based on a flat rate of 25%
- 20% tax credit
- A 25% allowance based on the gross value of the heavy oil as special deduction for the determination of the PPT
- A severance feature starting at $ 160 per barrel at 0.05% per barrel increase up to $ 200 and thereafter 0.1% per barrel increase up to a maximum of 10%
- A floor price for the purpose of calculating PPT of $ 55 per barrel escalated with inflation.

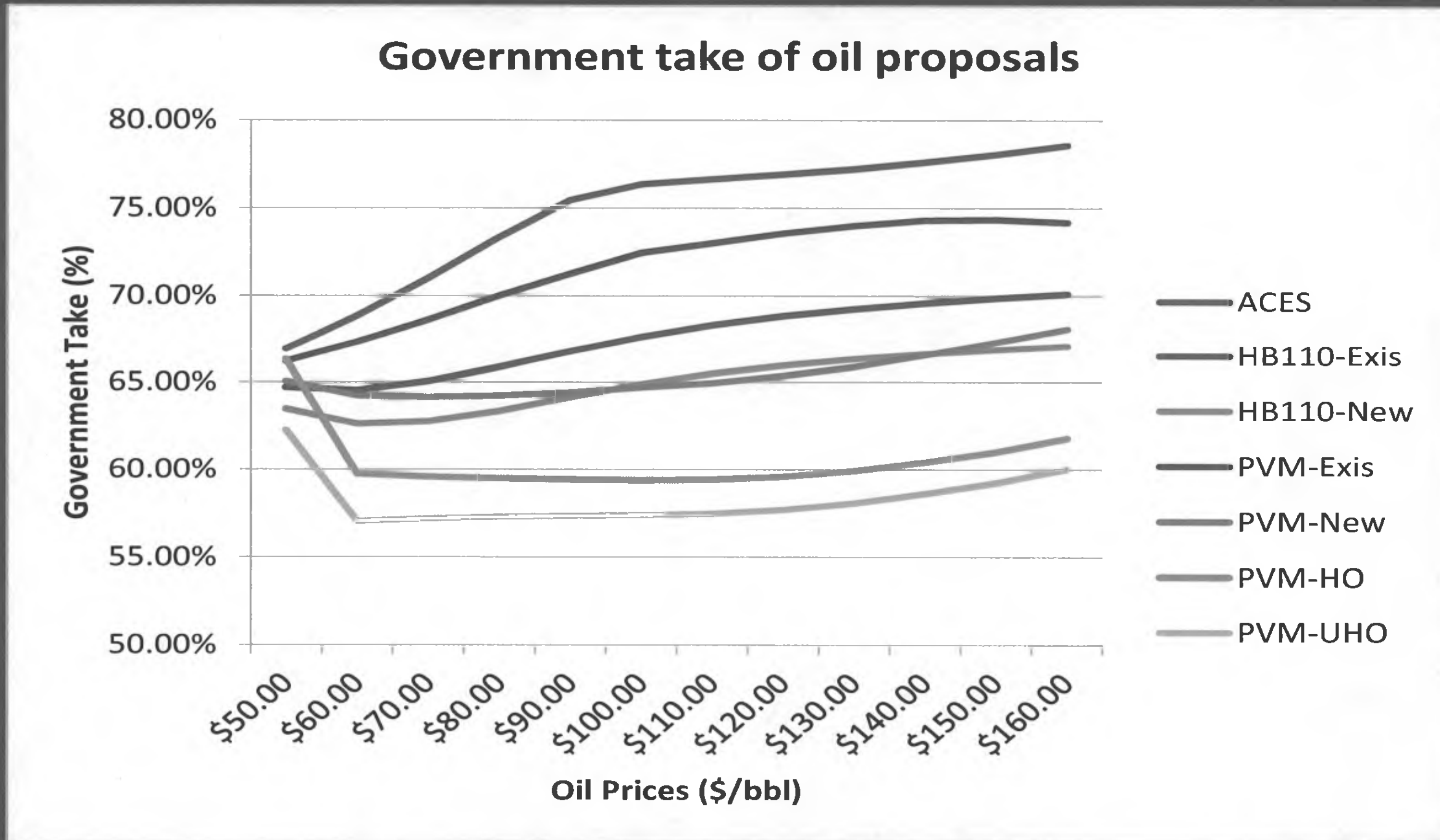
Terms for Ultra Heavy Oil
Proposed Terms

It is very important for Alaska to upgrade ultra heavy oil. This would create additional value added in the State and would make the operations of the oil line much easier.

It can therefore be suggested that producers are given the option to have a "feed price" into the upgrader for ultra-heavy oil which would be equal to 65% of the value of the synthetic oil that would be produced. The feed price would be the basis for royalties and PPT.

It would allow companies to only pay corporate income tax on the upgrader, since this is in fact a mid-stream type operation. This same concept is applied in Alberta for oil sands or refineries in Alaska.

Terms Overview



The PVM terms for existing light oil, new light oil, heavy oil and ultra heavy oil would be a simple overall scheme that would be easy to administer and implement and would not have the deficiencies of the current ACES system.

Terms for Shale Oil

The Shale Oil terms could be the same as the terms for ultra heavy oil.

However, there is a small probability that the shale oil operations may turn out to be rather profitable if fracking operations are very successful and primarily light oil is being produced.

So, it is possible to make the allowance of 20% more flexible and reduce the percentage in case shale oil production proves to be rather profitable.

This can be done with a so-called R-factor. The 20% could be reduced if the ratio between cumulative revenues and cumulative costs for a project become very profitable.

Terms for Natural Gas
New Gas Fields

Any condensates and other liquids from natural gas production could be dealt with as new light oil production.

For gas the fiscal package could be:

- Flat 25% PPT
- 20% tax credit
- 25% allowance of the gross value of the gas revenues
- Severance feature starting at \$ 8/MMBtu at 0.05% per \$1 per MMBtu, and after \$ 20/MMBtu at 0.1% (which means that on a Btu equivalent the severance feature is much stronger for gas than for oil)
- A floor net back gas price of \$ 3.00 per MMBtu for PPT purposes and a floor price for liquids and condensates of \$ 70 per barrel.

Terms for Natural Gas
Gas from fields with existing oil production

Any condensates and other liquids from natural gas production could be dealt with as new light oil production.

For gas the fiscal package could be:

- Flat 25% PPT
- 20% tax credit
- 15% allowance of the gross value of the gas revenues
- Severance feature starting at $ 8/MMBtu at 0.05% per $1 per MMBtu, and after $ 20/MMBtu at 0.1% (which means that on a Btu equivalent the severance feature is much stronger for gas than for oil)
- A floor net back gas price of $ 3.00 per MMBtu for PPT purposes and a floor price for liquids and condensates of $ 70 per barrel.

Government Take issues

As a first step it can be recommended to bring the government take down to higher levels than indicated by international competition for:

- Ultra heavy oil
- Shale oil
- Natural gas

The reason is that international competitive levels cannot be reached unless Alaska would lower the royalties. It seems prudent to first “test the market” on the packages proposed in this seminar.

New fiscal terms

	Light-Exist	Light-New	HO	UHO	Shale Oil	Gas-Exist	Gas-New
PPT Rate	25%	25%	25%	25%	25%	25%	25%
Tax Credit Rate	20%	20%	20%	20%	20%	20%	20%
Sev Feature - Base Price	$60	$60	$160	$160	$160	$8	$8
Sev Feature - Initial Increment	0.20%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Sev Feature - Change Price	$130	$180	$200	$200	$200	$20	$20
Sev Feature - Increment 2	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
Sev Feature - Max Rate	20%	15%	10%	10%	10%	15%	15%
Allowance - % gross rev	0	0	15%	25%	25%	15%	25%
Floor price - oil	no	no	$55	$55	$55	$70	$70
Floor price - gas	no	no	no	no	no	$3	$3
R-factor	no	no	no	no	yes	no	no

The proposed fiscal terms would provide for a simple to administer overall system and would set terms for all possible oil and gas investments. Significant investment may occur as a result of these terms.

Failure to achieve goals

What would happen if Alaska adopts these terms and no significant new investment takes place in Alaska, while oil production continues to decline:

1. **Alaska would not have lost anything compared to the current situation.**
2. **A very valuable benchmark would be established as to how fiscal terms may have to be changed further in order to eventually attract the investment in these resources.**

Summary

With the appropriate fiscal and contractual framework Alaska can achieve:

- 1 million barrel per day throughput through the TAPS line, and
- Significant LNG exports to the Pacific market

However major political and fiscal change is required.

The sooner the process starts to encourage these changes the better the future of Alaska will be secured.

ADDENDUM
1A

Addendum 1A to “Policy Options for Alaska Oil and Gas”

Pedro van Meurs

Monday – Tuesday, February 13-14, 2012

Presentation
Alaska Senate Finance Committee

(Note: This Addendum 1A replaces the “Addendum”)

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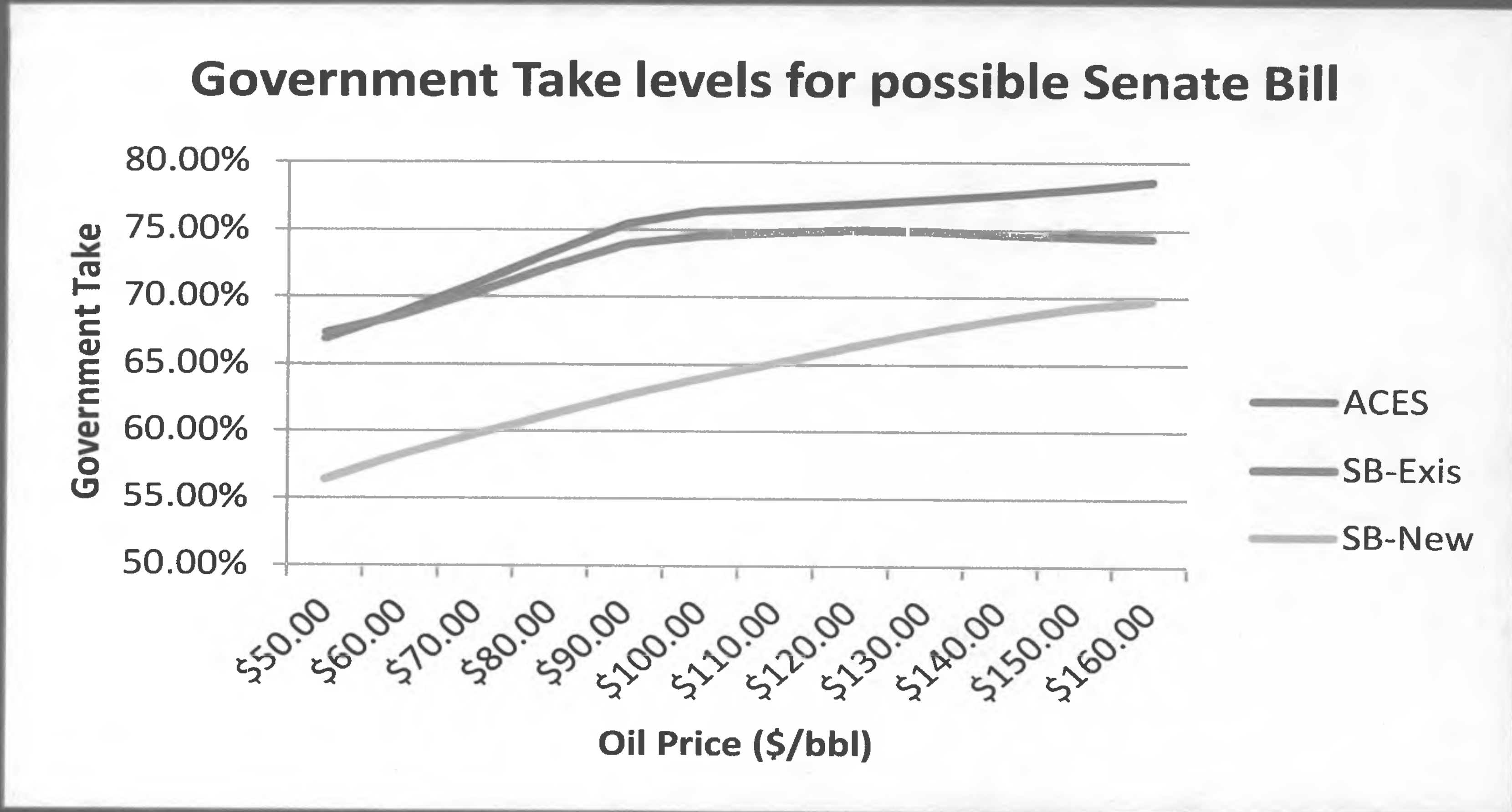
Possible Senate Bill

If all the Senate wants to do is make minor modifications to ACES in order to create a better bill than HB 110, the following easy proposal would achieve these goals:

- Change the current ACES to:
  - 0.35% per dollar increases to $ 90 and thereafter 0.1% increases to a maximum additional rate of 25% at $ 130 per barrel,
- Establish a 25% of gross revenues allowance for new oil production for the purposes of calculating PPT, and
- Limit tax credits to 20% on exploration and development.

Possible Senate Bill



The results show that this achieves the recommended government take ranges at $ 100 per barrel.

Possible Senate Bill

This proposal would achieve the following improvements relative to HB 110:

- It does not create the "give away" on revenues from existing production as proposed under HB 110.
- It provides the same stimulus for new production as proposed under HB 110.
- It does not require ring fencing
- It solves four deficiencies of ACES:
  - excessive tax rates,
  - excessive price progressivity,
  - excessive exploration support,
  - the negative PPT issues

Possible Senate Bill

The proposal would not achieve:

- Dealing with the nonsensical BOE cross subsidization and therefore, in case of any proposal by the major oil companies on a Pacific LNG project, the PPT would have to be significantly modified again to make such a proposal work,
- Creating an "architecture" to which new Alaska resources can be added, such as heavy oil, shale oil and natural gas,
- The stimulus of investment in heavy oil, oil shale or natural gas and thereby the achievement of the one million bopd goal.

Break down of Government Take in individual revenue items: Comprehensive Proposal-Existing Production

EXISTING PRODUCTION: PVM PROPOSALS FOR COMPREHENSIVE CHANGE
GOVERNMENT REVENUE ITEMS IN AMOUNTS AND PERCENT OF DIVISIBLE INCOME FOR THREE FISCAL ALTERNATIVES
(Undiscounted) (Real)($100 per barrel oil price)

		ACES		HB-110 Existing		PVM Existing	
TOTAL OIL PRODUCTION	(MMbbls)	500		500		500	
TOTAL GAS PRODUCTION	(Bcf)	0		0		0	
TOTAL GROSS REVENUES	(MM$)	47500		47500		47500	
TOTAL CAPEX	(MM$)	7500		7500		7500	
TOTAL OPEX	(MM$)	5000		5000		5000	
TOTAL DIVISIBLE INCOME	(MM$)	35000		35000		35000	
BONUSES, RENTALS	(MM$)	0	0.0%	0	0.0%	0	0.0%
ROYALTIES	(MM$)	5938	17.0%	5938	17.0%	5938	17.0%
PETROLEUM PROFITS TAX	(MM$)	13910	39.7%	8708	24.9%	5597	16.0%
PROPERTY TAX	(MM$)	834	2.4%	834	2.4%	834	2.4%
MISC REVENUES AND SEVERANCE FEATURE	(MM$)	18	0.1%	18	0.1%	5996	17.1%
CORPORATE INCOME TAX	(MM$)	6034	17.2%	8171	23.3%	6993	20.0%
GOVERNMENT INCOME	(MM$)	26733	76.4%	23669	67.6%	25358	72.5%

The PVM proposal at $ 100 per barrel would be slightly under the ACES levels for existing production (please note that the petroleum profits tax and severance feature income are listed separately).

Break down of Government Take in individual revenue items: Comprehensive Proposal-New Production

NEW PRODUCTION: PVM PROPOSALS FOR COMPREHENSIVE CHANGE							
GOVERNMENT REVENUE ITEMS IN AMOUNTS AND PERCENT OF DIVISIBLE INCOME FOR THREE FISCAL ALTERNATIVES							
(Undiscounted) (Real)($100 per barrel oil price)				HB-110		PVM	
		ACES		New		New	
TOTAL OIL PRODUCTION	(MMbbls)	500		500		500	
TOTAL GAS PRODUCTION	(Bcf)	0		0		0	
TOTAL GROSS REVENUES	(MM$)	47500		47500		47500	
TOTAL CAPEX	(MM$)	7500		7500		7500	
TOTAL OPEX	(MM$)	5000		5000		5000	
TOTAL DIVISIBLE INCOME	(MM$)	35000		35000		35000	
BONUSES, RENTALS	(MM$)	0	0.0%	0	0.0%	0	0.0%
ROYALTIES	(MM$)	5938	17.0%	5938	17.0%	5938	17.0%
PETROLEUM PROFITS TAX	(MM$)	13910	39.7%	7077	20.2%	5597	16.0%
PROPERTY TAX	(MM$)	834	2.4%	834	2.4%	834	2.4%
MISC REVENUES AND SEVERANCE FEATURE	(MM$)	18	0.1%	18	0.1%	1590	4.5%
CORPORATE INCOME TAX	(MM$)	6034	17.2%	8842	25.3%	8804	25.2%
GOVERNMENT INCOME	(MM$)	26733	76.4%	22708	64.9%	22762	65.0%

The PVM proposal at $ 100 per barrel would be equal to HB 110 for new production (please note that the petroleum profits tax and severance feature income are listed separately).

Break down of Government Take in individual revenue items: PVM proposal for modification of ACES

NEW PRODUCTION: PVM PROPOSALS MODEST ADJUSTMENT TO ACES

GOVERNMENT REVENUE ITEMS IN AMOUNTS AND PERCENT OF DIVISIBLE INCOME FOR THREE FISCAL ALTERNATIVES

(Undiscounted) (Real)($100 per barrel oil price)

		ACES		PVM Existing		PVM New	
TOTAL OIL PRODUCTION	(MMbbls)	500		500		500	
TOTAL GAS PRODUCTION	(Bcf)	0		0		0	
TOTAL GROSS REVENUES	(MM$)	47500		47500		47500	
TOTAL CAPEX	(MM$)	7500		7500		7500	
TOTAL OPEX	(MM$)	5000		5000		5000	
TOTAL DIVISIBLE INCOME	(MM$)	35000		35000		35000	
BONUSES, RENTALS	(MM$)	0	0.0%	0	0.0%	0	0.0%
ROYALTIES	(MM$)	5938	17.0%	5938	17.0%	5938	17.0%
PETROLEUM PROFITS TAX	(MM$)	13910	39.7%	12833	36.7%	6658	19.0%
PROPERTY TAX	(MM$)	834	2.4%	834	2.4%	834	2.4%
MISC REVENUES AND SEVERANCE FEATURE	(MM$)	18	0.1%	18	0.1%	18	0.1%
CORPORATE INCOME TAX	(MM$)	6034	17.2%	6476	18.5%	9014	25.8%
GOVERNMENT INCOME	(MM$)	26733	76.4%	26099	74.6%	22461	64.2%

The PVM proposal for a modest modification of ACES results in government revenues for Existing Production which are very similar to ACES.

Discounted Government Revenues and Government Take – Comprehensive Change – Existing Production

EXISTING PRODUCTION: PVM PROPOSALS FOR COMPREHENSIVE CHANGE

DISCOUNTED GOVERNMENT REVENUES AND GOVERNMENT TAKE FOR THREE FISCAL ALTERNATIVES

				HB-110	PVM
(Real)($ 100 per barrel price)			ACES	New	New
	Discount Rate				
GOVERNMENT	0%	(MM$)	26733	23669	25358
REVENUES	5%	(MM$)	10801	9516	10281
	10%	(MM$)	4555	3986	4368
GOVERNMENT	0%	%	76.4%	67.6%	72.5%
TAKE	5%	%	78.3%	69.0%	74.5%
	10%	%	81.6%	71.4%	78.2%

ACES and proposals result in a modest difference between the discounted government take and undiscounted government take.

Discounted Government Revenues and Government Take – Comprehensive Change – New Production

NEW PRODUCTION: PVM PROPOSALS FOR COMPREHENSIVE CHANGE					
DISCOUNTED GOVERNMENT REVENUES AND GOVERNMENT TAKE FOR THREE FISCAL ALTERNATIVES					
				HB-110	PVM
(Real)($ 100 per barrel price)			ACES	New	New
	Discount Rate				
GOVERNMENT	0%	(MM$)	26733	22708	22762
REVENUES	5%	(MM$)	10801	9119	9175
	10%	(MM$)	4555	3827	3861
GOVERNMENT	0%	%	76.4%	64.9%	65.0%
TAKE	5%	%	78.3%	66.1%	66.5%
	10%	%	81.6%	68.5%	69.2%

ACES and proposals result in a modest difference between the discounted government take and undiscounted government take.

Discounted Government Revenues and Government Take – Modest change to ACES

NEW PRODUCTION: PVM PROPOSALS MODEST ADJUSTMENT TO ACES					
DISCOUNTED GOVERNMENT REVENUES AND GOVERNMENT TAKE FOR THREE FISCAL ALTERNATIVES					
				PVM	PVM
(Real)($ 100 per barrel price)			ACES	Existing	New
	Discount Rate				
GOVERNMENT	0%	(MM$)	26733	26099	22461
REVENUES	5%	(MM$)	10801	10563	8979
	10%	(MM$)	4555	4470	3733
GOVERNMENT	0%	%	76.4%	74.6%	64.2%
TAKE	5%	%	78.3%	76.6%	65.1%
	10%	%	81.6%	80.1%	66.9%

ACES and proposals result in a modest difference between the discounted government take and undiscounted government take.

Repsol Anecdote

Subsequent to providing the Repsol anecdote about the complexity of ACES to the Senate Finance Committee, I was contacted by DOR.

DOR has no record of questions being asked by Repsol. Furthermore, DOR is of the view that they have an efficient system in place to respond to questions.

I have promised DOR to see whether I can get further clarifications from my contacts in Repsol on this matter. Repsol is an important new investor in Alaska. Their experiences are therefore of importance to see what can be learned from this to better attract new investors.

ADDENDUM
2

Addendum 2 to "Policy Options for Alaska Oil and Gas"

Pedro van Meurs

Monday – Tuesday, February 13-14, 2012

Presentation
Alaska Senate Finance Committee

COMMENTS ON DOR PRESENTATION OF FEBARY 13, 2012

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Re-investment by major oil companies

Slide 13 of the DOR presentation indicates that major oil companies reinvested $ 1544 million in 2010 in capital expenditures. Comments:

- This is about $ 8 per barrel produced
- DOR includes capital maintenance expenditures and work overs in these capital expenditures
- It is likely that about $ 4 per barrel relates to these type of expenditures. These are non-discretionary. They have to be done to continue operations normally
- It seems that the remaining $ 4 per barrel is largely infill drilling with the goal of accelerating cash flow
- This $ 4 per barrel is about $ 1 on an after tax basis.
- It is therefore clear that the three major companies are "harvesting" at the maximum rate. During the last 5 years there was "near zero" interest in investments in new projects.

Investor impact of high marginal rates related to higher prices

There may be some confusion as to the impact on investors of high marginal rates related to higher prices.

There is no direct impact of marginal rates on investment. Investments decisions are being made on the basis of the total average incremental NPV and IRR, not the marginal NPV or IRR.

For instance, Pakistan has in their production sharing contracts a price cap of $ 100. Over $ 100 all higher revenues go to government. So the marginal rate is 100%. Yet, investments are taking place because the take below $ 100 is relatively modest and therefore the NPV and IRR are acceptable.

Investor impact of high marginal rates related to higher prices

There are two important impacts of very strong price progressivity:

- Strong price progressivity means that the average rates increase to higher levels under higher prices. In the case of Alaska this means that that Alaska will rapidly become less attractive than some of the main competitors with regressive systems, such as the Lower 48, Australia, Russia and Brazil.
- New investors, will look negatively on very strong price progressivity because it removes the "upside" of the possible outcome of investments. This is a strong impediment for new investment. Even if price progressivity is less strong for new production, new investors will still evaluate how current producers are being treated by Alaska since this is an indication of the fiscal policy of the jurisdiction.

For these reasons one would not recommend price progressivity that is too strong.

Fiscal design criteria for Alaska

From an international perspective a number of design criteria can be recommended in order to optimize fiscal terms for Alaska:

- Price progressivity should not be so strong that the price incentive index drops below $ 0.10. For ACES this level is reached at a price of about $ 190 per barrel
- Cost progressivity based on average blended costs should not be so strong that the cost savings index drops below $ 0.20. For ACES this level is reached at a price of about $ 180 per barrel (assuming $ 25 per barrel costs)
- Government take should not be uncompetitive: For Alaska it should not be higher than 75%. For ACES this is reached at a price level of about $ 90 per barrel.

Fiscal design criteria for Alaska

(continued):

- Exploration support: Government should not contribute more than 80% of the exploration costs through tax credits and tax deductions. For ACES this level is reached at $ 60 per barrel.
- Negative PPT: Whenever tax credits or uplifts are being provided the tax income on a consolidated basis could become negative. Sensitivity analysis should be done to ensure that negative PPT only occurs under unlikely conditions. ACES is deficient under certain high cost – low price conditions.

ADDITIONAL DOCUMENTS

State of Alaska
Department of Revenue
Commissioner Bryan Butcher

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Oil and Gas Production Tax
Status Report to the Legislature
Alaska Department of Revenue
January 18, 2011

Report Purpose

In August 2006, the 24th Alaska state legislature approved House Bill 3001, which represented a major restructuring of the state's oil and gas production tax. As part of the legislation, lawmakers asked that the Department of Revenue study the impact of the production tax changes on several criteria and produce a report on or before the first day of the 2011 legislative session on the findings of that study.[1] This report summarizes those findings.

Executive Summary

This report evaluates six elements of Alaska's production tax system since implementation of the Petroleum Profits Tax (PPT) in 2006 and Alaska's Clear and Equitable Share (ACES) in 2007. The six elements and our key findings with respect to each of them are described briefly below.

1. **Revenue Generation/Tax Rate** – State revenues under PPT and ACES exceeded the amount that would have been received under ELF for each of the four fiscal years since implementation of a net profits tax. Although the production tax rate under ACES may be as high as 75%, tax rates in each of the

[1] ***AS 43.55.180 Required Report. (a)*** *The department shall study*
(1) *the effects of the provisions of this chapter on oil and gas exploration, development, and production in the state, on investment expenditures for oil and gas exploration, development, and production in the state, on the entry of new producers into the oil and gas industry in the state, on state revenue, and on tax administration and compliance, giving particular attention to the tax rates provided under AS 43.55.011 , the tax credits provided under AS 43.55.023 - 43.55.025, and the deductions for and adjustments to lease expenditures provided under AS 43.55.160 - 43.55.170; and*
(2) *the effects of the tax rates under AS 43.55.011 (i) on state revenue and on oil and gas exploration, development, and production on private land, and the fairness of those tax rates for private landowners.*
(b) *The department shall prepare a report on or before the first day of the 2011 regular session of the legislature on the results of the study made under (a) of this section, including recommendations as to whether any changes should be made to this chapter. The department shall notify the legislature that the report prepared under this subsection is available.*

four years were much lower than the maximum rate.

The oil tax rate of 5% of the gross value at the point of production at AS 43.55.011(i) for private landowners has not raised any significant concerns that have been communicated to the Department of Revenue.

2. **Industry Investment** – Investment in the form of capital expenditures has increased in each of the four fiscal years since implementation of the net profits tax, however, it is unclear how much of the capital expenditures were drilling or well-related and how much were maintenance or facilities-related.

3. **Impact on Exploration, Development, and Production –** Exploration has generally increased from 2003, when the EIC credit was implemented, but has dropped off in 2010. Development continues in three relatively new North Slope projects, yet production continues to decline.

4. **Industry Employment and New Entrants –** Industry employment rose steadily from 2006 through 2009, but dipped slightly in 2010. The number of companies filing annual tax returns doubled between 2006 and 2009, indicating interest by companies that are either new or returning to the Alaska oil and gas industry.

5. **Use and Expansion of Tax Credits –** The amount of credits used has increased annually since 2006 and we expect the trend to continue as new credit programs were added in the 2010 legislative session.

6. **Tax Administration and Compliance –** The department continues to write regulations for the new tax system, and the first audits under the net profits tax have been completed. The department has, however, been hampered in its tax reporting and compliance efforts by the lack of a centralized database to house and manage the large volumes of oil and gas data it receives.

7. **Conclusions and Recommendations –** Based on the multiple changes to the tax laws over the past few years, drawing any conclusion about their effect on Alaska's investment climate is difficult. However, what is clear is that production continues to decline. The state should continue to monitor its competitiveness with other oil and gas jurisdictions worldwide and be prepared to change its tax structure as needed.

Overview

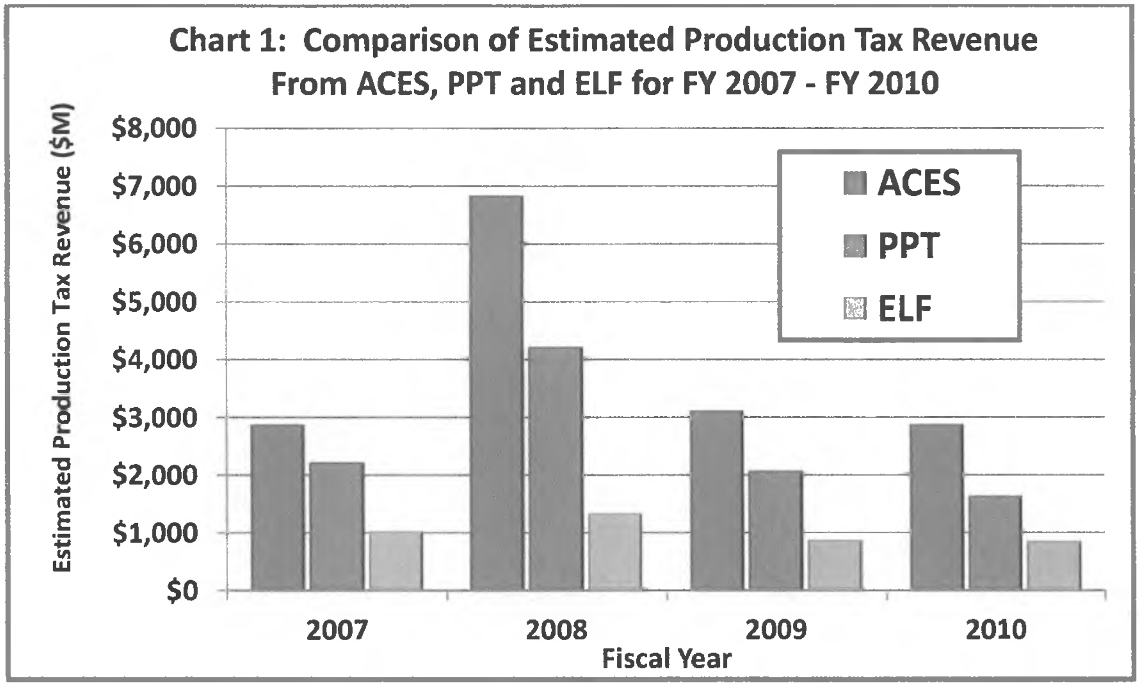
This report reviews and summarizes information gathered over the approximate five-year period since the implementation of the Petroleum Profits Tax (PPT) in 2006, and in 2007, Alaska's Clear and Equitable Share (ACES). The report covers six critical elements for evaluation and a section with conclusions and recommendations, as follows:

1. Revenue Generation/Tax Rate
2. Industry Investment
3. Impact on Exploration, Development and Production
4. Industry Employment and New Entrants
5. Use and Expansion of Tax Credits
6. Tax Administration and Compliance
7. Conclusions and Recommendations

Revenue Generation/Tax Rate

Both PPT and ACES have generated more production tax revenue for the State than would have been received under the previous production tax system, which used the Economic Limit Factor (ELF). In the one year that PPT was in place, FY 2007, the production tax totaled $2.2 billion. That year, the ANS West Coast oil price averaged $61.60 and production on the North Slope averaged 734,000 barrels per day. In contrast, the average oil price one year earlier, in FY 2006, was $62.12, production averaged 840,000 barrels per day, and the production tax under ELF totaled $1.2 billion--$1 billion, or 45% less than collected under PPT. It should be noted that PPT became effective on April 1, 2006, adding two months of tax collections to the FY 2007 total, making FY 2007 effectively a 14-month fiscal year. Regardless, the level of PPT collections above those that would have been collected under ELF, at least at moderately high prices, is significant.

In the three years that ACES has been in place, production tax revenues have increased to higher levels than under PPT. This is largely because ACES has higher base and progressivity tax rates than did PPT, and because one of the credits under PPT – the transition investment expenditure credit – was reduced substantially. The chart below shows production tax revenue collections under PPT and ACES as compared to how production tax revenue collections would have looked under two tax systems that were not in place during those years.



Production tax under both PPT and ACES is calculated on the net profits of oil and gas production, whereas ELF production tax was calculated on the gross profits of oil and gas production. Relative to taxes based on the gross value of production, net profit tax systems generally provide more tax revenue when oil prices are high and less tax revenue when prices are low. The progressive tax mechanism, designed to increase the total tax rate when per-barrel profit exceeds a pre-determined threshold, can increase the tax rate substantially. In addition to the progressive tax rate, the per-barrel profit level where the progressive tax is triggered is important. In the case of ACES, the progressive tax trigger is $30 net profit per barrel, whereas with PPT, the progressive tax trigger was $40 net profit per barrel.

Alaska North Slope (ANS) oil prices over the past four fiscal years were high relative to previous fiscal years. ANS crude prices over the four fiscal years of 2007 through 2010 averaged about $75 per barrel compared to $42 per barrel for the fiscal years of 2003 through 2006. Under ACES, an average price of $75 per barrel would yield an average profit of $50 per barrel, producing a combined base and progressivity tax rate of 33% (25% + [($50-$30)*.004]). The tax under this scenario before credits would be $16.50 per barrel. In contrast, the tax rate under ELF of 15% of the gross value at the point of production, even if the ELF calculated to 1, would yield a production tax of $10.50 per barrel, assuming transport costs of $5 per barrel.

When oil prices are low, however, a net profits-based tax structure would likely provide less production tax revenue than a gross profits-based tax. For example, a tax of 15% on the gross value, regardless of profit, could create a loss for companies producing oil if profits were equal to or less than the tax. Because PPT and ACES recognize the costs of production in their calculation, a company with no profit would not pay any production tax and would likely get tax credits to offset future tax liabilities. Low oil prices experienced late in the year 2008 and early 2009 generated tax liabilities for many companies operating on the North Slope that were lower than they would have been under the ELF system.

Chart 2 below shows the average tax rates of PPT, ACES and ELF under a range of oil prices. Also shown is the average tax rate in each of the years that a net profits tax has been in place.

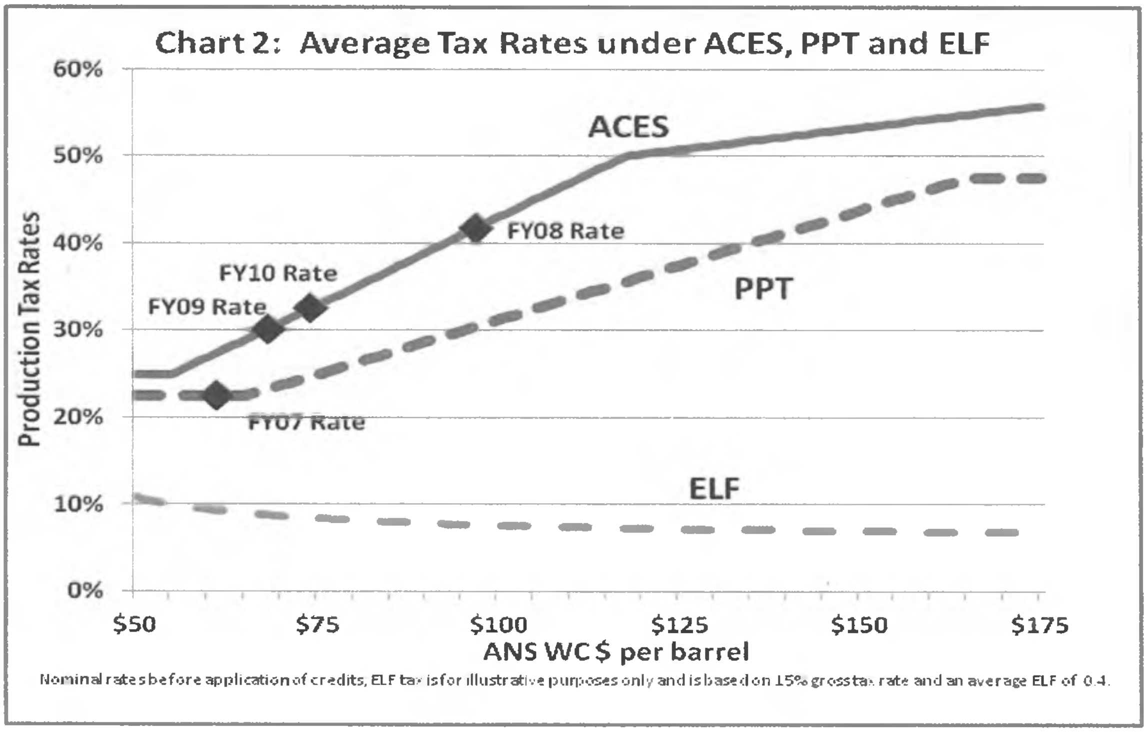


Chart 2: Average Tax Rates under ACES, PPT and ELF

Nominal rates before application of credits, ELF tax is for illustrative purposes only and is based on 15% gross tax rate and an average ELF of 0.4.

The department was also asked to review the tax rate for oil produced from private land of 5% of the gross value at the point of production.[2] The department is not aware of any concerns expressed on behalf of industry or private landowners as to the fairness of this tax.

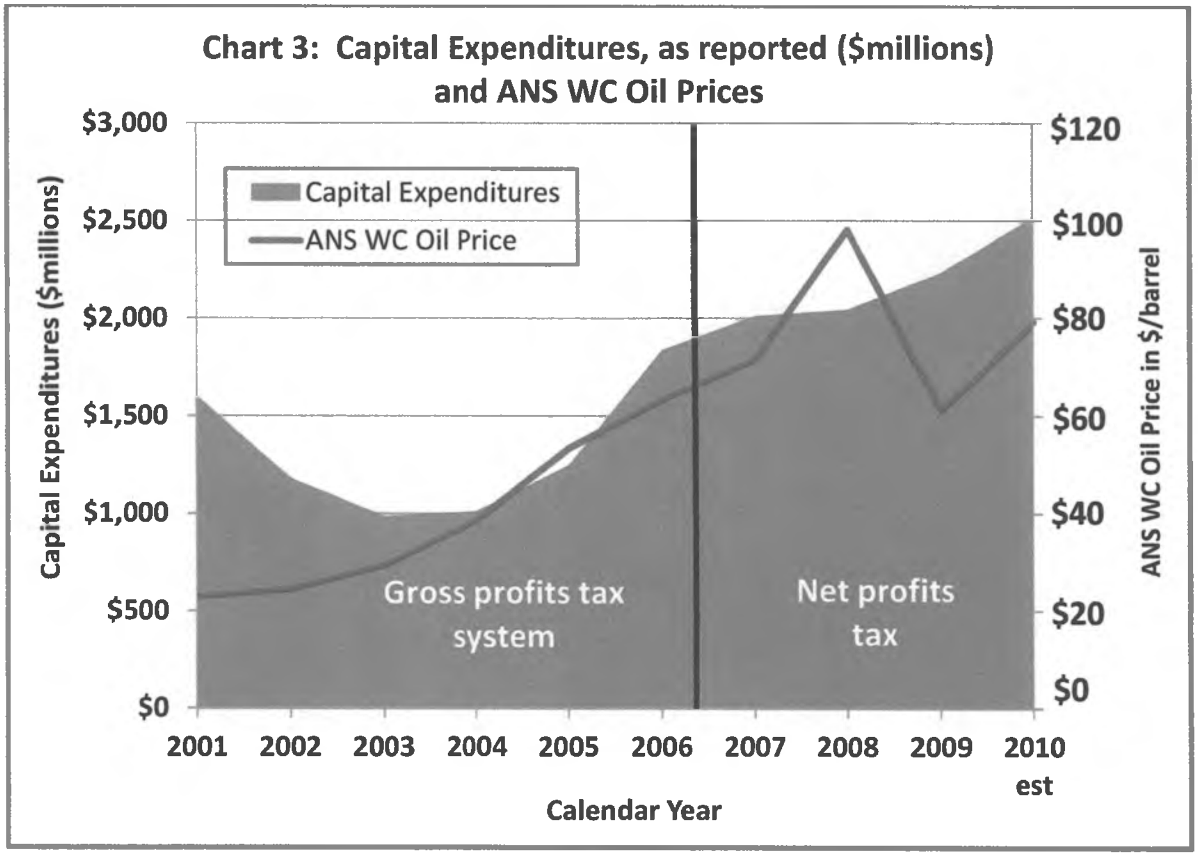
Industry Investment

Investment is an important component in Alaska's oil and gas industry. Producing oil, especially in an arctic environment, requires substantial financial outlays before, during

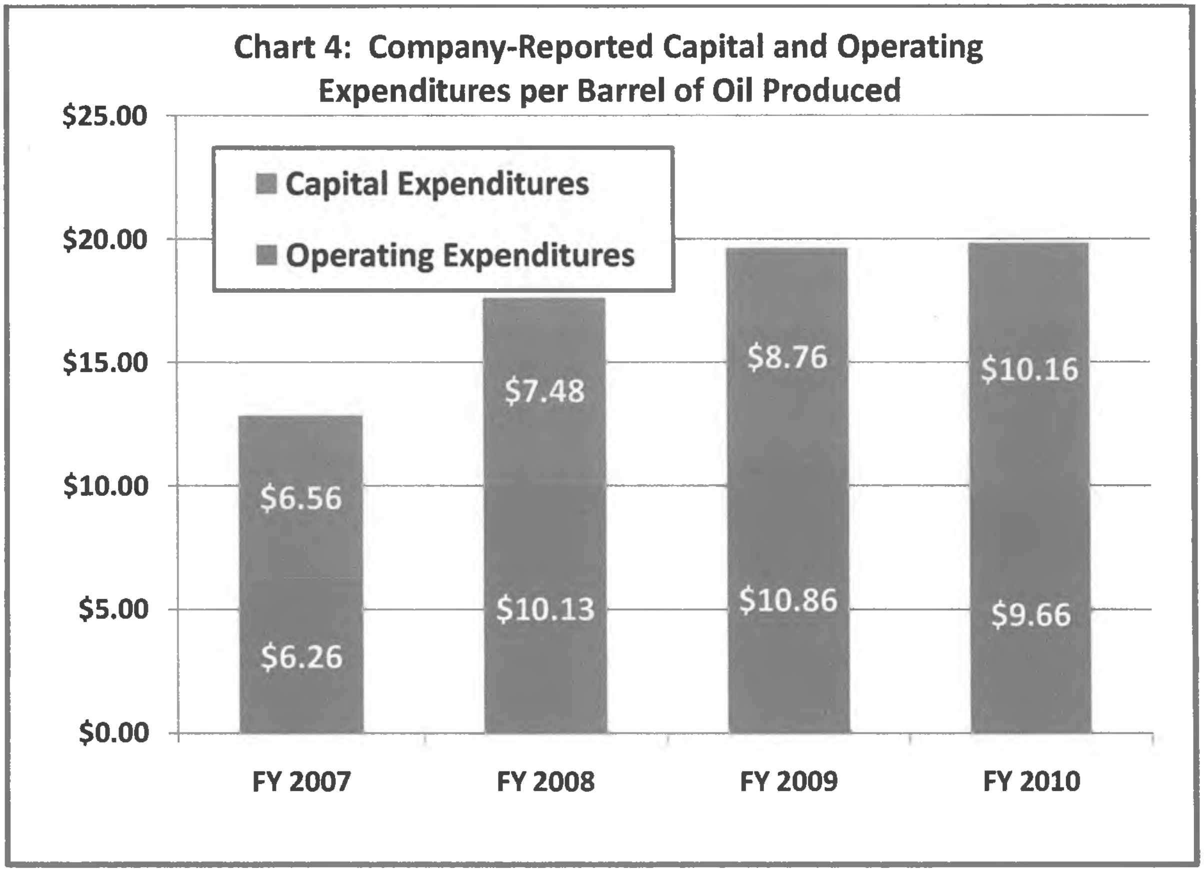
[2] AS 43.55.011(i)

and after producing the oil. In massive oil fields such as Prudhoe Bay, which has been operating for more than 30 years, maintaining and upgrading equipment and facilities is key to continued undisrupted oil production. Companies must also invest in research and new technologies in order to achieve the maximum recoverability of petroleum from the reservoirs they have developed. Because the companies that invest in petroleum projects can and do operate in areas outside of Alaska and the country, Alaska oil projects must compete with other petroleum opportunities throughout the world for those investment dollars.

Industry investment is generally reflected in capital expenditures, as opposed to operating expenditures, which are normally considered day-to-day expenditures for producing oil and gas. Alaska's fiscal system, which gives credits for capital expenditures, theoretically encourages these types of investments. Our review of the past 10 years of data appears to bear this out. Chart 3 below shows company-reported data from tax filings from calendar year 2001 through calendar 2010 (estimated). While capital expenditures over the five-year period (2006 through 2010) since the implementation of a net profits tax with credits for capital expenditures have increased each year, we have limited data as to the nature of the expenditures.

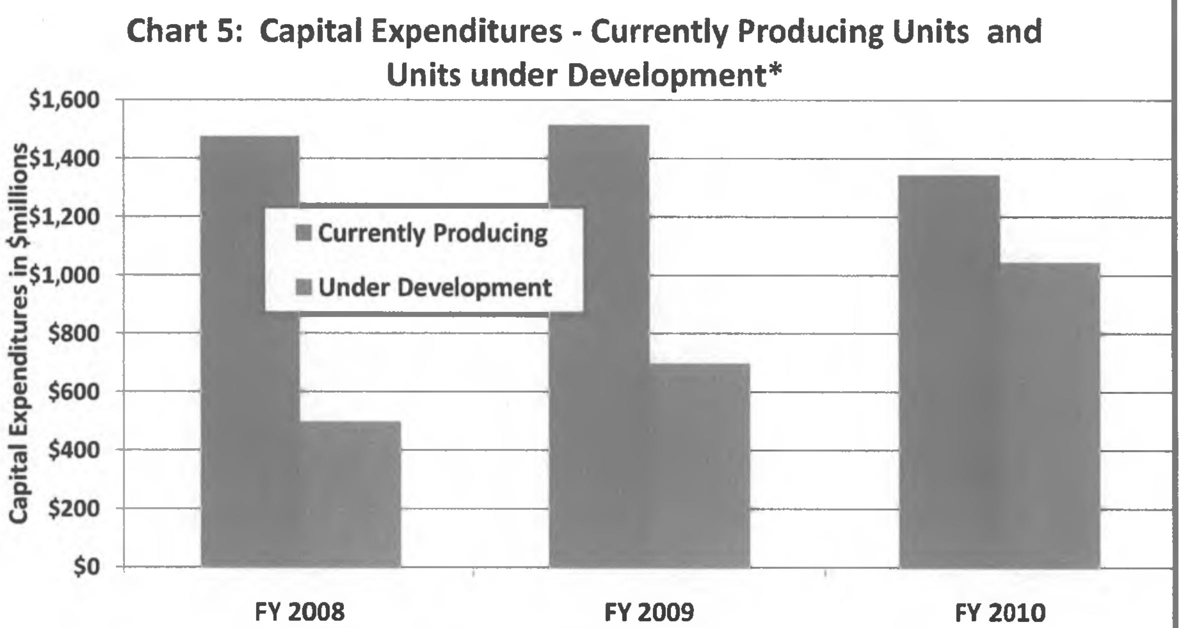


In the context of petroleum basin operations, capital expenditures are generally an indicator of expanding production or enhancing or extending the life of facilities or equipment. Expenditures for drilling wells normally fall into the category of capital expenditures as do expenditures for building housing or processing facilities. The Department of Revenue has extremely limited data from which to determine the nature of the capital expenditure increases. Given the age of North Slope facilities and infrastructure, it is quite possible that much of the capital investment in currently producing properties such as Prudhoe Bay is to extend the life of the facilities or infrastructure. Production on the North Slope continues to decrease, with a 7% decline rate between FY 2009 and FY 2010. The end result is that capital expenditures per barrel of oil produced are rising, while operating expenditures per barrel have leveled off and even decreased somewhat, as shown in Chart 4 below.[3]



[3] The slight decline in capital expenditures per barrel between FY 2007 and FY 2008 can be explained by the fact that FY 2007 included 14 months of expenditures, due to the effective date of the tax change of April 1, 2006.

One trend that has been observed in annual capital expenditures figures is that the proportion of capital spending in units under development has been increasing relative to the total capital expenditures spent on the North Slope. Chart 5 below shows expenditures by currently producing units and units under development over the past three fiscal years.



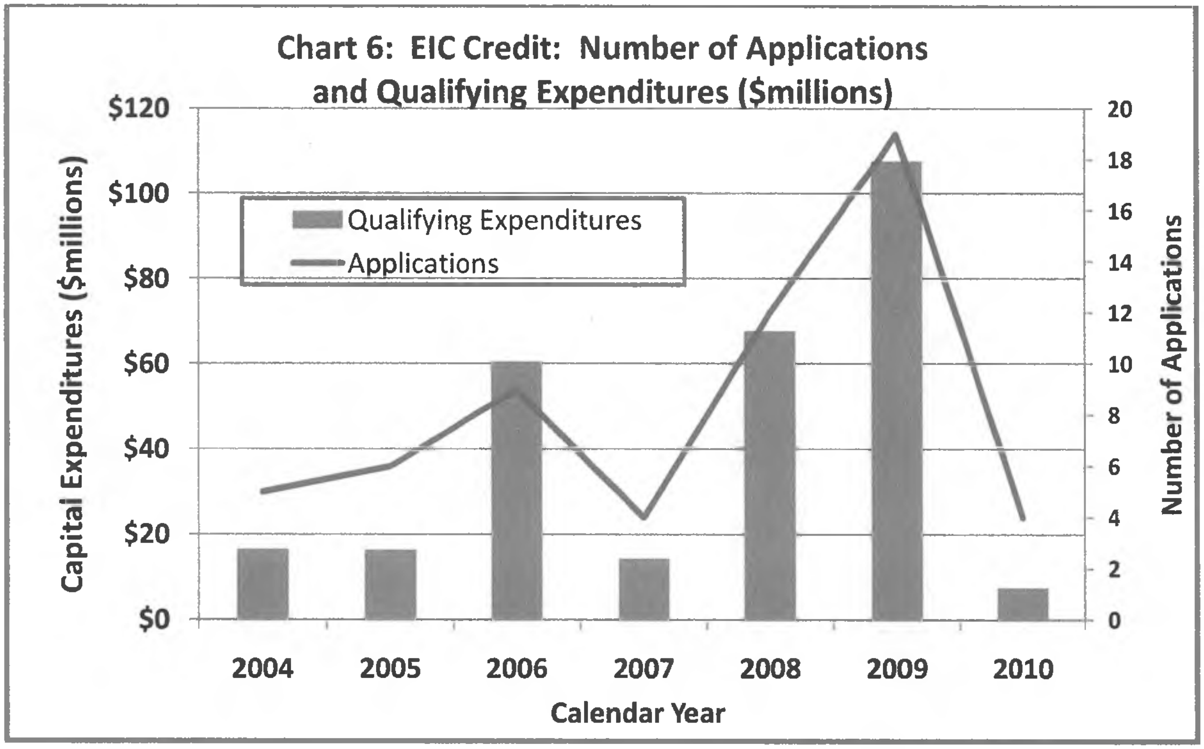
*Units under Development include Oooguruk, Nikaitchuq and Pt Thomson

Capital expenditures also earn credits under the new production tax system. The credit system for capital expenditures on the North Slope does not distinguish between types of capital expenditures in existing units. The legislature in 2010 expanded the credit program in Cook Inlet to include an additional 20% credit (total of 40% credit) for lease expenditures related to wellwork. A credit increase of this nature may also prove beneficial to incentivize capital expenditures on drilling and increased wellwork on the North Slope.

Impact on Exploration, Development and Production

As discussed in the previous section, the net profits tax system includes credits for capital expenditures, without distinction as to the nature of the expenditure. The tax system also includes credits for exploration expenditures through its exploration incentive credit (EIC) at AS 43.55.025. This credit was implemented in 2003 and was expanded with the ACES tax changes. If a project meets certain exploration criteria, it may be eligible for 40% credit under the EIC program.

The department began receiving applications under the EIC program in 2004, and the number of applications and amount of qualifying expenditures has generally increased each year peaking in the winter of 2008/2009[4]. The number of applications for EIC credit decreased significantly in 2010, reflecting a decrease in activity for the winter of 2009/2010. Chart 6 shows the number of applications and the expenditures that qualify under the EIC program from 2004 through 2010.

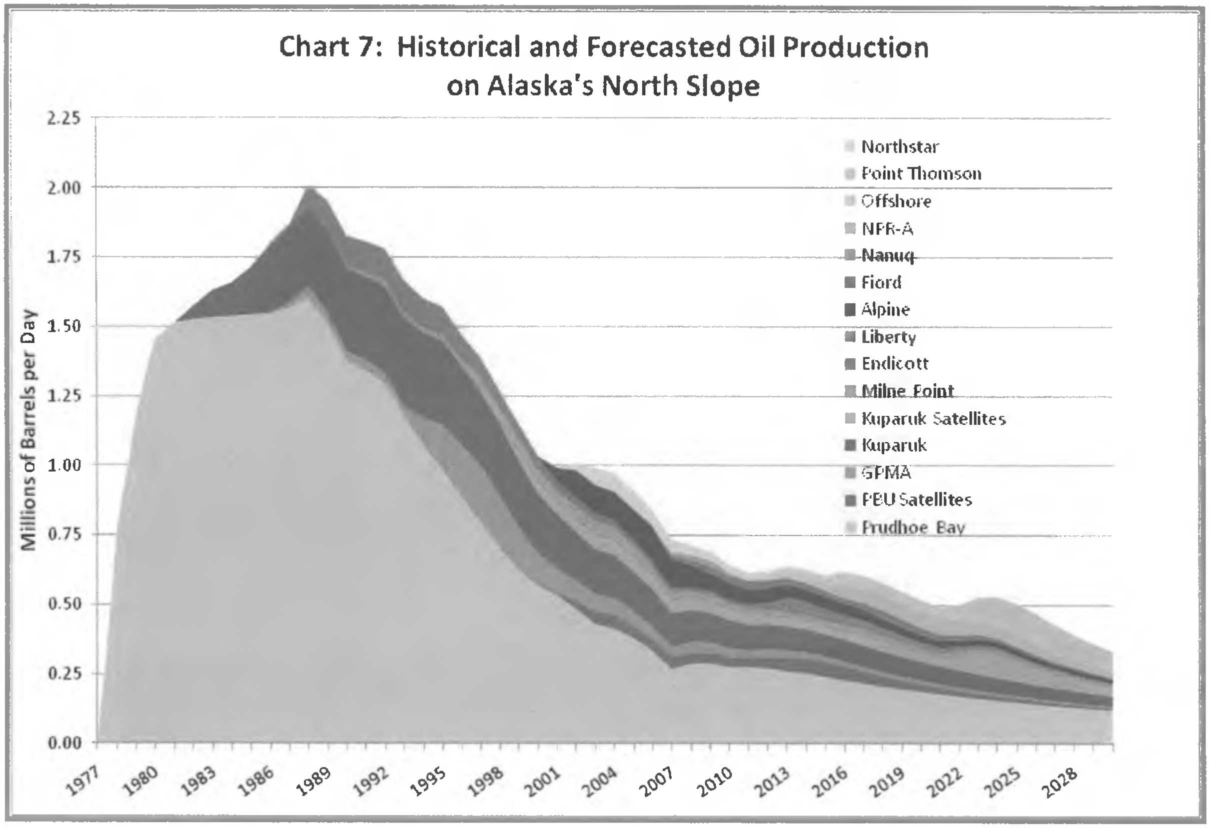


It is much more difficult to measure a tax system's impact on oil development and production from existing fields. The department's production forecasters twice annually create production profiles from limited information about an area's geology, drilling results, and other information exchanged in confidential discussions with operators. The compilation of production profiles for each North Slope field is a challenging task, employing the use of an engineering consultant, generally accepted engineering principles, and special software. The results of this compilation are subject to further revision as projects face delays that are typical in the petroleum industry such as reservoir challenges, permitting difficulties or lack of project funding.

New commercial developments on the North Slope include the Oooguruk Unit, which began production in 2009, and the Nikaitchuq Unit, which is expected to begin production in 2011. The Point Thomson Unit is also under development, expected to

[4] The sharp decrease in 2007 may be due to the tax change to the PPT, which at the time provided credit equal to the lower credit rate of the EIC program, without the reporting requirements.

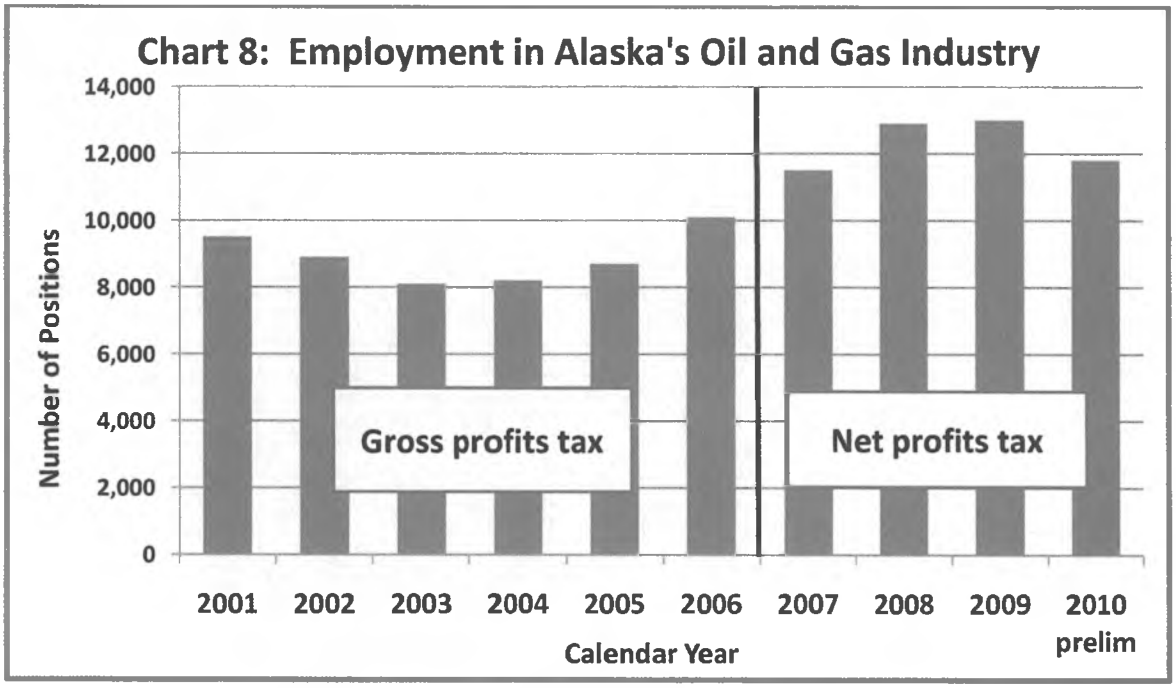
begin production in 2015. Despite the addition of these developments, North Slope production continues to decline. From FY 2009 to FY 2010, oil production declined 7%; another 4% decline is projected between FY 2010 and FY 2011. Chart 7 below shows historical and projected oil production from the North Slope.



Industry Employment and New Entrants

Employment in the oil and gas sector is another important measure of the health of the oil and gas industry in Alaska. Although oil and gas employment is not the largest category in the state, it is among the most sought-after employment, due to high wages. The Alaska Department of Labor and Workforce Development (DOLWD) reports that in 2009, the average earnings for a person employed in the oil and gas extraction industry was close to $14,000 per month. These earnings are more than 3 times higher than the average earnings for all industries and government in the state of about $4,000 per month.

The department also reports number of employees by industry. Oil industry employment in the state includes jobs with duties that would fall into one of three categories: (1) oil and gas extraction; (2) drilling oil and gas wells; and (3) support activities for oil and gas operations. Officials at DOLWD acknowledge that the definition is fairly narrow, leaving out important oil-related employment, such as jobs at Alyeska Pipeline Service Company and at refineries in the state. Employment in the oil and gas industry has increased in the years since PPT was implemented, although the department projects a slight decrease in 2010. These data are shown in Chart 8 below.



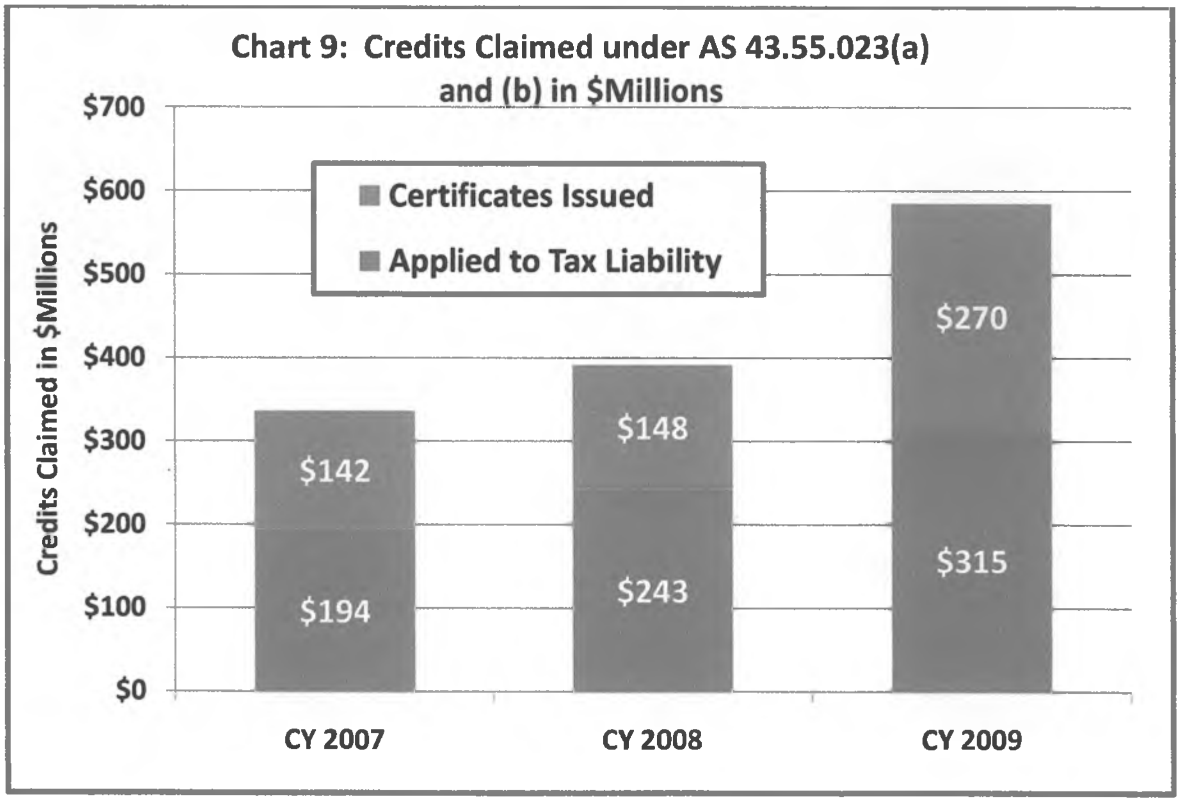
The state has seen new entrants into the Alaska oil and gas industry since the implementation of a net profits production tax. At the most recent lease sale held in October of 2010, a company new to Alaska successfully bid on over 100 tracts of oil and gas property. The steadily increasing number of production tax returns filed annually also indicates companies' new or renewed interest in Alaska's oil and gas opportunities. In 2006, the first year that filings were made under a net profits tax, there were 19 companies filing annual returns. In 2007, the number of companies filing production tax returns totaled 26, and in 2008, 36 companies filed annual production tax returns. The filing for 2009 increased only slightly from 2008, with 39 companies filing returns.

Use and Expansion of Tax Credits

Tax credits have played and continue to play an important role in the net profits production tax system. There are currently five credit programs specific to the oil and gas production tax, and each of the programs have had substantial interest, and in most cases, use from taxpayers. Alaska's tax credit programs are intended to steer spending to certain in-state activities.

The most widely used credits under the production tax system are the qualified capital expenditure credits at AS 43.55.023(a). Tax credits under this program may be applied to production tax to reduce a taxpayer's tax liability. If an oil and gas company has no tax liability, the credit may be carried forward, transferred to another company, or sold to the state. AS 43.55.023(b), credits for carried-forward net operating losses, are also widely used and may also be carried forward, transferred to another company, or sold to the state. Combined, these credits made up over 80% of the credits issued by the DOR Tax Division over the past three years.

Chart 9 below shows the total number of tax credits claimed under AS 43.55.023(a) and (b), categorized by the number of tax credits applied against a tax liability and the number of credits that were issued credit certificates for future use. We note that credits increased in each of the three years shown. The forecast for increased capital expenditures will translate to more credits applied against tax liabilities as well as more credits certificated.



Other credits include Small Producer/New Area Development credits (AS 43.55.024(a) and (c)) and Alternative Credit for Exploration (AS 43.55.025). These credits have seen less use than the credits under .023.

Credits have been expanded – both in credit rate and number of credits available – over the past year. The credit rate under the Qualified Capital Expenditure credit (AS 43.55.023) was increased for well lease expenditures relative to projects in Cook Inlet from 20% to 40%. Credit under the corporate income tax was also increased and extended (AS 43.20.043) for exploration and development of natural gas in Cook Inlet. The credit rate increased from 10% of qualified capital expenditures and qualified services to 25% of these costs and the credit program was extended from 2013 to 2016. For a complete listing of tax credits available against the production tax and other taxes, see the Fall 2010 *Revenue Sources Book*, at: http://www.tax.alaska.gov/programs/documentviewer/viewer.aspx?2126f

Tax Administration and Compliance

The numerous changes associated with the shift from a tax on gross value to a tax on profits have been a challenge for the Department of Revenue in a few specific areas. The first order of business under a tax system with a new, different way of calculating the tax is to define the inputs. This has taken place over the past several years in the process of creating, vetting, and implementing regulations. The regulations writing process for the production tax change has been extraordinarily interactive with the taxpayers, incorporating their input in all phases of development. Although this process may have slowed the pace of development, it resulted in more clarity in a complex set of regulations. The regulations writing process continues to date.

The change to a production tax on net profits also posed challenges for the audit staff in the areas of hiring qualified auditors and training auditors for the new demands of the position. The department has had difficulties attracting qualified auditors under the state pay schedule. New and expanded credit programs have also added to their workload. Despite these challenges, the audit staff has completed most of the audits under the PPT system.

The greatest difficulties faced by the department since the implementation of a net profits production tax system are the collection, use, and storage of the huge amounts of data received monthly and annually. As an example, the department receives monthly information from each active oil and gas company regarding the amount of oil and gas produced, the amount spent in operating and capital expenditures, the amount of credits earned and used, and the payment submitted. The department also receives documents pertaining to petroleum sales and netback calculations, most of which are submitted in Adobe Acrobat pdf format, which is not a suitable format for data storage or use. Assembling this data in a useable format is time-intensive and subject to error, as the data are cut and pasted into spreadsheets manually. Further compilations and changes subject the data to additional error and distortion.

The department's access to and use of this important data would be substantially improved if the information were housed in a central database, with access provided to all users of the data. The department believes securing a database will assist in operating more efficiently and effectively as an interface with both taxpayers and the public.

Conclusions and Recommendations

A government's fiscal regime is just one element for oil and gas companies to consider when weighing options for where to invest. Many other elements, such as resource risk, political risk, environmental factors, and availability of labor and equipment, also play a part in companies' decisions about where to invest. It is very difficult to separate these factors in order to determine the extent to which a government's fiscal system influences investment choices.

While it is untenable to blame a tax system for the lack of industry investment, it is equally untenable to claim that the tax system is the reason increased activity or investment occurs. The past three years have seen dramatic swings in oil prices from a high of $134 per barrel to a low of $38 per barrel just 6 months later. An economic recession stifled investment and business activity in the United States and much of the developed world for over a year. The economic activity of the past three years may not have been the best benchmark by which to judge the impact of a tax system.

Nevertheless, it is prudent for state officials to monitor praise for and criticisms of its fiscal systems from both industry and the general population that they serve. High oil prices of recent years have swelled state bank accounts and some have suggested that the state is in the best financial position since statehood. Business periodicals and industry journals report that state is benefitting at the expense of a single industry – petroleum – and that the tax rate under ACES is too high and "takes away the upside" for the oil and gas producers. Criticism is often centered around the marginal tax rate under ACES, under which the government share of each additional dollar of profit may be as high as 93%.

State officials also make efforts to stay informed on the global oil and gas markets and opportunities in other jurisdictions, including how Alaska ranks competitively against them. Among the recent events in government taxation was the royalty modification undertaken by the Canadian province of Alberta. Studies conducted for the Alberta government showed that the royalty changes made in 2007, combined with the recession, the changes in natural gas markets, and other jurisdictions' efforts to attract investment, were making Alberta less competitive for limited petroleum investment capital. The government responded to this information by changing its royalty structure in a way that the government's share of oil and gas profits would be lower.

The State of Alaska depends heavily on the oil industry, with more than 80% of its unrestricted revenue coming from oil taxes and royalties. State officials should continue to monitor the state's competitiveness in oil and gas opportunities, and be prepared to modify it as the need arises.

FY2012 SUPPLEMENTAL REQUESTS

		Bill Sec.	Bill Page	Bill Line	Department	Component or Capital	Description of Supplemental Need	Unrestricted General Funds	Designated General Funds	Other Funds	Federal Funds	Fund Source	Total Funds
76 #88	76	6(b)	12	7	Commerce	Capital	Reappropriate the unexpended and unobligated balance of the appropriation made in sec. 78(c), ch. 1, SSSLA 2002, page 132, lines 2 - 5, as amended by sec. 69, ch. 29, SLA 2008, page 225, lines 24 - 29, estimated to be $8,965,000, to the Alaska Energy Authority and allocated in the following amounts: (1) $1,000,000 for a Railbelt-wide detailed transmission line plan; (2) the balance, estimated to be $7,965,000, for the upgrade and extension of the Anchorage to Fairbanks power transmission line intertie to a southern terminus in the Point MacKenzie area.	0.0	0.0	0.0	0.0		0.0
90	77	6(c)	12	17	Commerce	Capital	Reappropriate the unexpended and unobligated balance of the appropriation made in sec. 39(a)(4), ch. 15, SLA 2009, page 80, line 6 to new entities to replace Coastal Resource Service Area (CRSA) grantees that no longer exist for federally approved Coastal Impact Assistance Program grants.	0.0	0.0	0.0	0.0		0.0
91	78	7	13	3	Corrections	Capital	Reappropriate the unexpended and unobligated balance, not to exceed $100,000, of the appropriation made in sec. 1, ch. 5, FSSLA 2011, page 79, lines 16-18 for the Combined Hiland Mountain Correctional Center land transfer.	0.0	0.0	0.0	0.0		
92	79	8	13	8	Education and Early Development	Commissioner's Office	Judgments and Settlements Settlement between Department of Education and Citizens for the Educational Advancement of Alaska's Children (CEAAC), related to the state's education system for the fiscal years ending June 30, 2012 through June 30, 2017.	18,000.0	0.0	0.0	0.0	1004 General Fund	18,000.0
93	80	9(a)	13	14	Law	Deputy Attorney General's Office	Judgments and Settlements Actual judgment and settlement costs received as of January 30, 2012	20,770.8	0.0	0.0	0.0	1004 General Fund	20,770.8
	81	9(b)	13	18	Law	Deputy Attorney General's Office	Judgments and Settlements Actual judgment and settlement costs incurred in the fiscal year ending June 30, 2012 but not included in the previous subsection.	0.0	0.0	0.0	0.0	1004 General Fund	0.0
94-1	82	10(a)	13	23	Military and Veterans Affairs	Army Guard Facilities Maintenance	Scope Change: Section 13, ch. 29, SLA 2008, page 151, lines 27-28 Anchorage Armory Roof Replacement and G-Wing Preparation	0.0	0.0	0.0	0.0	1003 General Fund Match (380.5) 1004 General Fund 380.5	0.0
94-2	83	10(b)	13	30	Military and Veterans Affairs	Army Guard Facilities Maintenance	Amend: Section 1, ch. 5, FSSLA 2011, page 88, line 21 State Match Requirement Change for Federal Energy Projects The federal/state funding ratios for armory operations in Kodiak, Ketchikan, and Kenai have changed due to federal regulations regarding funding and armory use.	7.5	0.0	0.0	(7.5)	1003 General Fund Match 1002 Federal Receipts	0.0
94-4	84	10(c)	14	4	Military and Veterans Affairs	Army Guard Facilities Maintenance	Amend: Section 4, ch. 43, SLA 2010, page 12 line 27 State Match Requirement Change for Deferred Maintenance Projects in Kodiak, Ketchikan, and Kenai The federal/state funding ratios for armory operations in Kodiak, Ketchikan, and Kenai have changed due to federal regulations regarding funding and armory use.	737.5	0.0	0.0	(737.5)	1003 General Fund Match 1002 Federal Receipts	0.0
94-5	85	11	14	9	Natural Resources	Gas Pipeline Project	Extend the lapse date for permitting and application processing related to the state gas pipeline right-of-way work related to bringing North Slope natural gas to market, made in Section 22(c), ch. 14, SLA 2009, as amended by sec. 11(c), ch. 1, FSSLA 2011, from June 30, 2012 to June 30, 2013.	0.0	0.0	0.0	0.0		0.0

FY2012 SUPPLEMENTAL REQUESTS

PG #		Bill Sec.	Bill Page	Bill Line	Department	Component or Capital	Description of Supplemental Need	Unrestricted General Funds	Designated General Funds	Other Funds	Federal Funds	Fund Source	Total Funds
94-6	86	12	14	12	State Debt and Other Obligations	International Airports Revenue Bonds	Amend: Section 32(q), ch. 3, FSSLA 2011 This allows the Alaska International Airport System to restructure debt payments to include additional passenger facility charge (PFC) revenue and the International Airports Construction Fund.	0.0	0.0	0.0	0.0	1027 Int Airports Revenue Fund (13,500.0) 1112 Int Airports Construction Fund 10,000.0 1179 Passenger Facility Charges 3,500.0	0.0
94-7	87	13	14	27	Fund Capitalization	Disaster Relief Fund	Supplemental Disaster Funding Current disasters are expected to exhaust the available general funds in the Disaster Relief Fund. In addition to fall and winter storms, traditionally there are springs floods that have been eligible for expenditures from the Disaster Relief Fund. The impact of this supplemental request is being considered for a FY2013 budget amendment.	3,000.0	0.0	0.0	0.0	1004 General Fund	3,000.0
95	88	14	14	29	Ratifications (see below)		(See below)						0.0
	89	15	15	9	Budget Reserve Fund		The unobligated balance of the operating general fund at the close of business on June 30, 2012, is appropriated to the Budget Reserve Fund.						0.0
	90	16(a)	15	12	Lapse of Appropriations		The appropriations made by secs. 6, 7, and 10 of this Act are for capital projects and lapse under AS 37.25.020.						0.0
	91	16(b)	15	14	Lapse of Appropriations		The appropriations made by secs. 13 and 15 of this Act are for the capitalization of funds and do not lapse.						
	92	17	15	16	Retroactivity		Section 14(b) of this Act is retroactive to June 30, 2011.						0.0
	93	18	15	17	Effective Date		This Act take effect April 15, 2012						
	94						**Total of Supplemental Requests**	78,514.7	(2,350.6)	4,801.0	16,271.3		97,236.4
	95												
	96	IFICATIONS					**AR and AR Name**						
	97	14(a)	14	29	Natural Resources	Fire Suppression Activity	AR 37313-11 Fire General Fund	36,388.9					36,388.9
	98	14(b)(1)	15	7	Public Safety	Statewide Facility Maintenance	AR 47410-11 Statewide Facility Maintenance	152.1					152.1
	99	14(b)(2)	15	8	Public Safety	Laboratory Services	AR 47892-11 Crime Lab Toxicology Unbudgeted RSA	2.2					2.2

Scope Change: Anchorage Armory Roof Replacement and G-Wing Preparation

FY2012 Request: $0
Reference No: 45205

AP/AL: Appropriation
Category: Public Protection
Location: Joint Base Elmendorf - Richardson
Impact House District: Anchorage Areawide (HD 17-32)
Estimated Project Dates: 04/15/2012 - 06/30/2013

Project Type: Deferred Maintenance
House District: Military (HD 18)
Contact: McHugh Pierre
Contact Phone: (907)428-6003

Brief Summary and Statement of Need:
A scope change is requested on an existing $4 million appropriation titled "Anchorage Armory Roof Replacement" to expand the language to allow the Department of Military and Veterans Affairs to provide needed site preparation for the G-Wing at the same facility.

Funding:	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total
G/F Match	$-380,500						$-380,500
Gen Fund	$380,500						$380,500
Total:	$0	$0	$0	$0	$0	$0	$0

☐ State Match Required ☑ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ On-Going
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:
Original appropriation: SLA 2008 Chapter 29 (SB221), Section 13, Page 151, Line 27.

Project Description/Justification:
The original appropriation provided funding for a life cycle replacement of the Anchorage Armory roof. $4,000,000 was appropriated for the project and included a 50% general fund match (GFM) requirement. The project was completed in FY2011 under budget. There is remaining authorization of $380,500 in general fund match.

The requested language change expands the title from "Anchorage Armory Roof Replacement" to "Anchorage Armory Roof Replacement and G-Wing Preparation". This project will provide for site preparation work associated with Anchorage Armory expansion at Camp Denali. Site prep work may include but is not limited to land clearing, construction access road development, sidewalk and asphalt demolition, communications tower and utility relocation. The department wishes to amend the funding source from general fund match to general fund.

Federal Energy Projects | **FY2012 Request:** **$0**
Reference No: **50957**

AP/AL: Appropriation with Allocations
Category: Public Protection
Location: Statewide
Impact House District: Statewide (HD 1-40)
Estimated Project Dates: 04/15/2012 - 06/30/2016

Project Type: Energy

House District: Statewide (HD 1-40)
Contact: McHugh Pierre
Contact Phone: (907)428-6003

Brief Summary and Statement of Need:
This request will provide additional matching funding for federal energy projects at Kenai, Ketchikan, and Kodiak. The federal funding ratio has changed due to federal regulations regarding funding and armory use. The total request for the federal energy projects remains $490,000. The funding split is amended to from $10,000 general funds and $480,000 federal funds to $17,500 general funds and $472,500 federal funds.

Funding:	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Fed Rcpts	$-7,500						$-7,500
G/F Match	$7,500						$7,500
Total:	$0	$0	$0	$0	$0	$0	$0

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☑ On-Going
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:
Original appropriation and allocations: Chapter 5, Section 1, FSSLA 2011 (SB46), page 88, line 21 - page 89, line 4

Project Description/Justification:
The federal funding ratio for armory maintenance and renovation has changed due to federal regulations regarding funding and armory use. Three projects appropriated in Chapter 5 FSSLA 2011 now require additional state match.

The project scope and total project costs remain the same.

Allocations Affected	General Fund Match	Federal Funds
Kenai Replace Exterior Lights with LEDs	2.5	(2.5)
Ketchikan Replace Exterior Lights with LEDs	2.5	(2.5)
Kodiak Replace Exterior Lights with LEDs	2.5	(2.5)

Deferred Maintenance Projects | **FY2012 Request:** $0 | **Reference No:** 49583

AP/AL: Appropriation with Allocations
Category: Public Protection
Location: Statewide
Impact House District: Statewide (HD 1-40)
Estimated Project Dates: 04/15/2012 - 06/30/2014
Project Type: Deferred Maintenance
House District: Statewide (HD 1-40)
Contact: McHugh Pierre
Contact Phone: (907)428-6003

Brief Summary and Statement of Need:

Funding is requested to provide the required match for the Kodiak, Ketchikan, and Kenai projects from the FY2010 Deferred Maintenance Supplemental Request. The project description/justification of the individual allocations within this appropriation request for Deferred Maintenance Projects is amended. These projects repair state facilities to improve the life of state assets.
This total request remains $10,300,000. The funding split is amended to $4,712,500 General Funds and $5,587,500 Federal Funds.

Funding:	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Fed Rcpts	$-737,500						$-737,500
G/F Match	$737,500						$737,500
Total:	$0	$0	$0	$0	$0	$0	$0

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☑ On-Going
0% = Minimum State Match % Required ☐ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:

Original appropriation and allocations: Original allocation: Ch 43, Sec. 4, SLA 2010 (SB 230), page 12, line 27 - page 13, line 6

Project Description/Justification:

Due to the state to federal funding ratio change, the amount of state match for some projects has increased from 25% state/75% federal to 50% state/50% federal.

Allocations Affected	General Fund Match	Federal Funds
Armory Facilities Deferred Maintenance	200.0	(200.0)
Army Guard Facilities Projects Match Funding	537.5	(537.5)

Language Only

Change Record Detail with Description

Department of Natural Resources

Scenario: FY2012 Supplemental (9721)
Component: Gas Pipeline Project Office (2947)
RDU: Administration and Support (600)
Title: Extend Lapse Date for Gas Pipeline Permitting Ch. 1 FSSLA2011

Trans Type	Totals	Personal Services	Travel	Services	Commodities	Capital Outlay	Grants, Benefits	Miscellaneous	Positions PFT	PPT	NP
Suppl	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0

The Department of Natural Resources (DNR) requests approval to extend the lapse date to June 30,2013 for the remaining general funds balance (estimated to be $1,177.3) for Gas Pipeline Permit (AR 37998).

Appropriation History:
Original appropriation: SLA2004 ch.159 Sec 24 page 82 line 6 Lapse: June 30, 2009
Reappropriated for the same purpose:SLA2009 ch. 14 Sec 12 page 18 lines 6-12
Lapse date: SLA2009 ch. 14 Sec 22 page 30 line 10 Lapse: June 20, 2011
Lapse extensions:
FSSLA2010 ch. 1 Sec11 page 36 line 2 Lapse: June 30, 2012

The intent of the appropriation is to fund the permitting and application processes related to gasline right-of-way work needed to bring North Slope natural gas to market. Industry will pay for much of the permitting and application processing. However, there is demand for work which will not be reimbursed by private industry.

Costs which are not covered through reimbursement by non-state agencies include:
- Legal counsel on a variety of items such as contaminated sites, authorities and responsibilities, opinions on actions taken by the state and general analysis of federal law as it relates to the DNR leasing process.
- Analysis of material site demands for infrastructure development at all stages of construction.
- Identification of infrastructure sites for construction and operations.
- Training staff on issues relating to project adjudication which include, but are not limited to engineering, environmental issues, and construction and operation of a pipeline.
- Contracting of independent engineering services to advise DNR to protect state interests.
- Field studies which expand the scope of work on an existing study and serve to maximize the benefit for the participating agency.
- General administrative costs.
- In-state and out-of-state travel to gather information relating to pipeline construction.
- Technical analysis of specific engineering issues in the early project stages.

This work will require the use of the remaining balance of the appropriation. It is expected that these funds will be expended or obligated by June 30, 2013. To date, $2,005.8 has been encumbered to support the continuing light detection and range data collection project along potential gas pipeline right of ways. This data will serve multiple purposes, but are primarily being collected to (1) evaluate active faulting, slope instability, thaw settlement, erosion, and other engineering constraints along the proposed pipeline routes and (2) provide a base layer for the state-federal GIS database that will be used to evaluate permit applications and-construction plans.

Language Only

Change Record Detail with Description

Debt Service

Scenario: FY2012 Supplemental (9721)
Component: International Airport Revenue Bonds (2284)
RDU: Debt Service (251)
Title: Fund Source Changes for FY2012 Alaska International Airport System Debt Service Payments

	Trans Type	Totals	Personal Services	Travel	Services	Commodities	Capital Outlay	Grants, Benefits	Miscellaneous	Positions PFT	PPT	NP
	Suppl	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0
1027 Int Airprt	-13,500.0											
1112 IntAptCons	10,000.0											
1179 PFC	3,500.0											

The Alaska International Airport System (AIAS) requests fund source changes relating to FY2012 International Airport debt service in order to increase the amount of Passenger Facility Charges (PFC) currently approved, and to use a portion of existing AIAS Construction Funds for FY2012 debt service payments. As with previous supplemental requests in years' past, this request utilizes amounts deemed by AIAS as surplus and available in order to help minimize the amount of revenue needed to be collected from airport customers while meeting debt service coverage ratios required under the bond resolution rate covenant.

The AIAS proposes increasing the use of PFC previously collected under the provisions of an Federal Aviation Administration PFC application for the payment of FY2012 annual debt service in the amount of an additional $3.5 million and Construction Funds in the amount of $10.0 million in order to help ensure FY2012 debt service covenants are met without raising rates and fees to AIAS customers in excess of the increased landing fee revision implemented November 1, 2011.

The use of these particular funds in lieu of the International Airports Revenue Fund also allows the AIAS to provide debt service payments from funds on hand, net of the additional 25% debt service coverage which would otherwise be required to be collected through current fiscal year operating revenue rate and fee increases to AIAS customers.

These appropriation changes will allow AIAS to meet the technical requirements of their bond resolution rate covenant while also minimizing the need for rate and fee changes to customers. Both are required to meet fiscal obligations and maintain fiscal integrity.

Change Record Detail with Description

Fund Capitalization

Scenario: FY2012 Supplemental (9721)
Component: Disaster Relief Fund (2497)
RDU: Fund Capitalization (OpSys) (608)
Title: Supplemental Disaster Funding

Trans Type	Totals	Personal Services	Travel	Services	Commodities	Capital Outlay	Grants, Benefits	Miscellaneous	Positions PFT	Positions PPT	Positions NP
Suppl	3,000.0	0.0	0.0	0.0	0.0	0.0	3,000.0	0.0	0	0	0

1004 Gen Fund 3,000.0

Current disasters are expected to exhaust the available general funds in the Disaster Relief Fund. In addition to fall and winter storms, traditionally there are springs floods that have been eligible for expenditures from the Disaster Relief Fund.

The impact of this supplemental request is being considered for a FY2013 budget amendment.