

Presentation to Alberta Royalty Review Panel

May 14, 2007

Delta South Edmonton Hotel and Convention Centre

J. Jay Park

Factors that Determine Petroleum Investment

- the international oil & gas industry determines where to invest based on three key criteria:
 - the attractiveness of the geology
 - the fiscal terms applicable in the petroleum regime
 - the other legal and regulatory terms of the petroleum regime
- the first two factors define investor interest; the third is a possible "brake" on that interest

"Fair Share"

- the geology in Alberta is well known, and is sufficiently attractive to create the very active industry here
- Alberta has established its fiscal terms, and conducts a competitive system for the award of oil & gas rights in a highly competitive environment
 - signature bonuses represent the excess of value that industry sees over the royalties, taxes, fees and income tax that applies
 - it reflects the value of the resource in light of the attractiveness of the geology
- consequently, there can be no doubt that Alberta is getting its "fair share" of oil & gas revenues *based on Alberta's geology and the petroleum regime that the Government has created*
- the question then is:
 - does the Alberta petroleum regime require change in light of new circumstances
 - if yes, how to apply those changes

Creating or Amending a Petroleum Regime

- developing or altering a petroleum regime requires assessing the state's desires and goals
- a key part of a petroleum regime is the fiscal system
- with over 1000 different fiscal systems in 170 countries, there are many different approaches to determining "Government Take"
- selecting the right fiscal tools is properly the domain of petroleum economists, *but*
- determining the approach for a particular state requires answering a *series of questions* about desired petroleum policy
 - these are questions that are properly asked of the government and its citizens

Policy Issues in Determining "Government Take"

- How is the fiscal regime designed to:
 - deal with changes in the *profitability* of petroleum operations
 - affect the *timing* of the state's share of revenue
 - encourage or discourage *initial investment* and *incremental investment*
 - share *geological risk* between the investor and government

Government Take and Profitability

- When the profitability of oil & gas changes, how should the government's share of that profitability change?
 - *Regressive* systems give the state a lesser share of profits when profitability increases
 - example: fixed gross royalty of 12.5%
 - *Neutral* systems give the state the same share of profits when profitability increases
 - example: corporate income tax
 - *Progressive* systems give the state an increasing share of profits when profitability increases
 - example: R factor systems
 - *Hybrid* systems involve a blend of the above features
 - example: royalty formulae, such as Alberta's royalty on conventional oil & gas

Government Take and Timing

- At what time in the life of the investment does the state want to receive its share?
 - Front End Load:
 - *example*: signature bonus, royalties
 - Neutral
 - *example*: corporate income tax with fair depreciation rates
 - Back End Load:
 - *example*: R factor systems

Government Take and Encouraging Investment

- To what extent does the state want to encourage *initial investment* in petroleum activities, and encourage *incremental investment* in petroleum activities?
 - initial investment issues:
 - front end load
 - incremental investment issues:
 - consolidation of tax & royalty system

Government Take and Risk Sharing

- To what extent is the state prepared to share in the risks associated with oil & gas activities?
 - price risk
 - cost overrun risk
 - capital expenditures
 - operating expenditures
 - reserve risk
 - economic risk
 - gas market risk

Answering the Four Questions

- Alberta's fiscal regime was last overhauled in the 1970s
 - subsequent changes have been relatively minor
- The following slides describe:
 - the presenter's assessment (others may differ) of how the government *apparently* answered these questions *in the 1970s* in creating Alberta's current royalty regime
 - these answers are "reverse engineered" from the current royalty regime
 - how the presenter, as a single citizen of Alberta, would answer those questions *today*

Answers to Fiscal Policy Questions

- *Q1.* To what extent does the state want to encourage *initial investment* in petroleum activities, and encourage *incremental investment* in petroleum activities?
 - *A1, Alberta 1970s:* poor to average encouragement of initial investment*, and good encouragement of incremental investment for conventional; very good encouragement for both in oil sands
 - *A1, Presenter 2007:* good to very good encouragement of both initial and incremental investment
- *Q2.* When the profitability of oil & gas changes, how should Alberta's share of that profitability change?
 - *A2, Alberta 1970s:* hybrid regressive
 - *A2, Presenter 2007:* neutral to progressive

* Note: special royalty incentive programs have created targeted encouragement of investment in selected situations

Answers to Fiscal Policy Questions

- *Q3*: At what time in the life of the investment does the state want to receive its share?
 - *A3, Alberta 1970s*: front end load (conventional), back end load (oil sands)
 - *A3, Presenter 2007*: neutral to back end load
- *Q4*: To what extent is the state prepared to share in the risks associated with oil & gas activities?
 - *A4, Alberta 1970s*: low risk to state (conventional), moderate risk to state (oil sands)
 - *A4, Presenter 2007*: moderate risk to state

Why Might Alberta's Answers be Different in 2007?

- Alberta's situation has changed
 - no government deficit
 - no public debt
- a more mature, wealthy and economically sophisticated province
- oil & gas prices have changed upward to a degree that may not have been within the planning involved in the current fiscal regime
- if the Panel determines that the answers to these questions in 2007 are not consistent with Alberta's current royalty regime, then adjusting the fiscal tools is appropriate to reflect this
 - suitable advice from petroleum economists is needed

The "Fiscal Toolbox" in a Concession Regime

- bonuses:
 - signature bonus
 - determined by bidding
 - determined by negotiation
 - fixed by legislation
 - production bonus, payable upon:
 - a discovery
 - a commercial discovery
 - the application for a development area or development license
 - the start of the production
 - upon reaching certain pre-determined levels of production
 - upon reaching certain predetermined levels of cumulative production
- rentals:
 - fixed
 - variable over duration of the grant (i.e. exploration phase, production phase, or both, or varying over time)
- royalties:
 - fixed amount
 - fixed percentage of production
 - sliding scale, based on:
 - level of field production
 - level of well production
 - cumulative production
 - level of well production and price
 - payout
 - "R" factor
 - "rate of return"
 - elapsed time
 - gravity of the oil
 - royalty credits and holidays
 - net profit royalties
- local market obligations
- corporate income tax
 - fully consolidated
 - ring fenced by contract area, on a sector basis, regionally, or nationally
 - special rate for petroleum sector activities
- special taxes, based on:
 - gross revenues
 - surtaxes
 - net revenues
 - internal rate of return
 - R-factors
 - uplifts with combination of the above concepts
- excise taxes
- customs duties

An Example of Possible Change to Alberta's Fiscal Regime: Signature Bonuses

- Alberta awards petroleum rights based on competitive bidding using a signature bonus as the bid criteria
 - this is part of the "front end load" that is an undesirable feature for investors
 - it is also a highly regressive form of Government Take, so arguably is undesirable for the state, depending on its need for revenue today vs. future revenue needs, and appetite for risk
- The current environment for oil & gas has recently resulted in large increases in the signature bonuses to the government
 - these are advance payments to the state for the grant of oil & gas rights
- However, as a wealthy state, the Alberta government's "discount rate" is probably about 5%, while industry's is probably 15%
- This means that the net present value to Alberta of future payments is much greater than they are to industry
- Let's use Shell's recent acquisition of an oil sands lease as an example

Shell Oil Sands Lease Acquisition, 2006

- Shell paid \$465 million to explore 219,000 acres of *potential* oil sands resources
- if Shell's discount rate is 15%, \$465M today is the same as paying \$83M annually for the next 25 years
- if the Government's discount rate is 5%, the net present value of \$83M annually for 25 years is \$1140M
- a petroleum regime that is so heavily focussed on front end loaded payments by investors to a wealthy government holds the potential for "win-win" changes that are beneficial to both Alberta and investors
- the logic of a front end loaded system in Alberta is questionable

Comments on Bonuses

- the Shell bonus is an example of the success of Alberta's policy of encouraging oil sands development
 - the Shell lease is in an area where no one previously thought oil sands could be produced
 - Shell probably has developed technology to extract oil sands from fractured carbonate reservoirs
 - this represents a policy success for Alberta, that will produce benefits to Albertans
- the suggestion that changes to the bonus system could lead to "win-win" improvements in Alberta's fiscal regime is a result of recent events:
 - only recently have signature bonuses grown to be very large
 - when Alberta recently eliminated its debt, its "discount rate" dropped, so its need for "money today" vs. "money tomorrow" has changed
 - therefore, the Panel's mandate to assess Alberta's petroleum regime is timely, but not overdue

Other Policy Issues

- the questions posed above are the key questions that should be put to citizens and a government involved in designing the fiscal components of a petroleum regime, but there are many more
 - sharing of the divisible income
 - sharing of the risks
 - resource policy objectives
 - economic policy objectives
 - administrative policy objectives
 - legal framework
 - stability of the Government Take
 - alignment of government and investors interests
 - NPV bandwidth to the investor
 - legal/contractual fiscal stability issues
- the Panel should consider these as well, to the extent that they are within its mandate

Ensuring that "Fair Share" is Received

- if it is determined that changes to Alberta's petroleum regime are desirable, please ensure that they create an attractive environment for investment and re-investment on a wide range of economic factors
 - the benefits to Albertans of an active and profitable oil industry are immense
 - oil investors look at global opportunities, and can easily leave
 - a durable regime is one that works across a wide range of price, cost and risk
- ensuring that Alberta receives its "fair share" occurs by conducting a competitive bid process for the award of rights in an industry with many players
 - industry will enhance the fiscal terms (through bonuses or otherwise) to bring the terms up to the appropriate "fair share"

Changing Terms for Existing Investment

- if it is determined that changes to Alberta's petroleum regime are desirable, please be aware that changing terms for *existing* investment is a risky proposition
 - investors are wary of the states that seek to benefit from the "problem of the obsolescing bargain"
- some states give guarantees of fiscal stability
 - it has not been necessary for Alberta to do so because there is a high degree of trust that the government will not change terms for existing investors
- ultimate costs to a state from altering terms for existing investors are incalculable, but potentially immense
- as an Alberta citizen, the presenter does not support changing the terms on existing investment in Alberta
 - don't betray the trust that investors have in Alberta
 - if change is needed, it should only be on new investment, with grandfathering of existing investment

Background Information: J. Jay Park

- Jay Park is an Alberta lawyer practising domestic and international oil & gas law since 1980
- He has worked on oil & gas transactions Canada as well as Albania, Algeria, Azerbaijan, Brazil, Brunei, Cambodia, China, Colombia, Egypt, Equatorial Guinea, France, Indonesia, Iran, Iraq, Kazakhstan, Kenya, Kuwait, Lebanon, Libya, Mexico, New Zealand, Niger, Nigeria, Oman, Pakistan, Peru, Russia, Saudi Arabia, Somalia, Sudan, Thailand, Trinidad, Ukraine, United Kingdom, United States of America, Vietnam, Venezuela and Yemen, principally for international oil companies, but also for governments, state oil companies and multilateral agencies such as the World Bank
- He has assisted governments and state oil companies in the design or amendment of petroleum regimes in eight countries, whose total resources comprise 49% of world oil reserves and 33% of world gas reserves
- Jay has been recognized by *Who's Who Legal*, the independent research partner of the International Bar Association, as the world's leading oil & gas lawyer in 2006 and 2007