PRELIMINARY REPORT ON FISCAL DESIGNS FOR THE DEVELOPMENT OF ALASKA NATURAL GAS

BY
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For

State of Alaska
Legislative Budget & Audit Committee

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Appendix 1

Scope of Work

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The following scope of work was agreed prior to the work commencing in April 2008:

(A) The Consultant [David Wood] will provide the Legislature with professional analysis and advice with respect to natural gas fiscal designs. This assistance will be at the direction of the LBA chair or project director and may include, but is not limited to, answering the following questions:

1. What do other major successful (and unsuccessful) gas fiscal regimes around the world look like, focusing in particular on those that might be competing for $20+ billion plus in investment over the next decade and other U.S. states or nations with well-developed legal systems?

2. What kind of fiscal stability, if any, do investors in major projects usually receive?

3. How are the economic rents, returns and risks of the projects divided between the resource owners and the resource developers?

4. Are there features of Alaska that should make particular aspects of other gas fiscal regimes attractive to Alaska?

5. Are there any recommendations of what the state ought to do with its fiscal system to advance the monetization of the state's gas?

6. Will the 2006 - 2007 changes in the Alaska petroleum fiscal regime work for a major gas export project?

7. If the 2006 - 2007 Alaska petroleum fiscal regime has features that make it unattractive for natural gas upstream and midstream investments and developments, and assuming this new tax structure is fair for oil, how might an equally fair fiscal regime for gas be structured?

(B) Specific issues to be addressed in answering the broader questions shall include but are not limited to:

- The range of fiscal instruments applied around the world to large-scale gas development projects.
- What specific fiscal instruments tend to achieve in practice and whether they have progressive, regressive or neutral impacts on project economic performance.

- The key financial, commercial and market issues confronting major gas development projects and contrast these with such issues facing the commercialization of Alaska natural gas.
- Highlight fiscal mechanisms that can provide incentives for future investment both upstream and midstream in the natural gas supply chain without substantially diluting Alaska fiscal revenues.
- Clarify in what ways a supply chain linking Alaska natural gas resources to the U.S. Lower 48 gas markets is unique in global terms and requires tailored fiscal mechanisms not relevant to many international projects.
- Explore alternative fiscal structures that provide both flexible and progressive taxation including, but not limited to, incentives for investors available only to efficient operators, i.e. those that avoid excessive cost and time overruns in project development.
- Consider issues surrounding third-party access (TPA) to upstream and midstream infrastructure and how TPA might be built into some fiscal incentives. This has relevance as an incentive to both incumbent resource holders and new entry investors.
- Identify in what ways long-term fiscal stability might be established for upstream investors and whether this can be done in ways that minimize risk of lower returns for the state. There are a number of questions associated with this issue that need addressing, such as how long should fiscal stabilization mechanisms apply, and how frequently should terms be re-opened for adjustment in line with changes in market conditions?
- Explore the implications of minimum guaranteed gas prices combined with price-cap provisions.
- Identify the benefits of long-term offtake contracts that require gas price indexing to benchmark prices. This mechanism is widely used internationally. How might long-term agreements for Alaska gas enhance offtake security?
- Consider how tax holidays and capital cost uplifts might be most effectively used as investment incentives and whether they can be linked to project schedules and budgets.
- Can fiscal incentives be established, such that, should market conditions and technologies evolve positively, investors can be encouraged to progress beyond pipeline gas deliveries to other gas monetization options (liquefied natural gas, gas-to-liquids, petrochemicals, etc.)? Such development would not only benefit Alaska fiscally, but should also improve prospects for local employment and the service and supply sector.
- Discuss how cost-recovery mechanisms (accelerated versus delayed) impact the time value benefits from gas field developments and how they can be used as incentives for investors.
- Consider the issues of risk and geopolitics. How do these factors influence investors' responses to fiscal terms when deciding upon where to approve long-term gas projects?
- The fiscal mechanisms selected as examples shall be evaluated (stress tested) for several gas field development cases with a number of sensitivities relating to gas prices, costs and production timing. The results of the sensitivity analysis will be presented in graphical terms providing time-value indicators, such as net present value (NPV) and NPV/discounted investment ratios. The sensitivity analysis will also provide information on how revenues and economic rent would be divided in percentage terms between gas companies, state and federal taxes.