EXECUTIVE SUMMARY

TransCanada Alaska Company, LLC ("TC Alaska LLC") and Foothills Pipe Lines Ltd. ("Foothills") jointly submit this application for a license to construct an Alaska natural gas pipeline project ("Project" or "APP") pursuant to the *Alaska Gas Inducement Act* ("AGIA") and in accordance with the requirements of the Request for Applications ("RFA") issued by the Alaska Commissioner of Natural Resources and the Alaska Commissioner of Revenue (the "Commissioners") on July 2, 2007 and revised on August 6, 2007 and on October 26, 2007. TC Alaska LLC and Foothills (collectively or separately as appropriate, "TransCanada" or "Co-Applicants") are both wholly-owned subsidiaries of TransCanada Corporation. The term "TransCanada" is also used in this Application to generically denote the TransCanada Corporation group of companies, as appropriate.

The North Slope of Alaska holds 35 trillion cubic feet ("tcf") of currently proven natural gas reserves and it is estimated that another 100 to 200 tcf ultimately could be discovered. Connecting these vast reserves to growing North American markets holds the promise of tremendous benefits to Alaska and its residents, as well as to the energy and economic security of the United States.

The fundamental purpose of AGIA is to encourage the expedited construction of a natural gas pipeline that will move proven natural gas reserves on the Alaska North Slope ("ANS") to available markets in Alaska and elsewhere and that also will promote exploration for and development of new oil and gas resources. To accomplish this purpose, however, the project proponents must overcome a variety of significant challenges, including:

- The size and cost of the project.
- Difficult terrain and harsh climate conditions that require special design and construction considerations.
- Complex, inter-jurisdictional legal and regulatory requirements.
- Long lead-times for major equipment.
- Environmental sensitivities.
- Complex commercial circumstances in which potential Shippers, project sponsors, and the State of Alaska may have different timing and other competitive interests.

As this Application demonstrates, TransCanada's proposal maximizes the likelihood of success of an APP, with a very favorable net present value of anticipated cash flows to the State. The combination of TransCanada's significant experience and expertise in natural gas pipeline project construction and operation, particularly in challenging northern climate and terrain conditions, as well as more than three decades of commitment to moving Alaska gas to market, makes TransCanada uniquely qualified to overcome these challenges and to become the development partner of the State. Certainly, the details reflected in this Application should assure the State that TransCanada can be relied upon to be a stable, predictable and successful business partner for such a significant undertaking.

This Executive Summary (1) briefly summarizes the key qualifications of TransCanada to construct an APP; (2) describes the Project proposed by TransCanada; (3) discusses the key project management, regulatory, and commercial challenges of bringing Alaska gas to

market, explaining how TransCanada plans to meet those challenges; and (4) describes the very favorable net present value of anticipated cash flows to the State.

1) TransCanada's Preeminent Qualifications to Construct, Own and Operate the Natural Gas Transportation Infrastructure to Unlock Alaska's Vast Natural Gas Reserves

TransCanada owns one of the largest, most sophisticated, remote-controlled natural gas pipeline networks in the world, with 36,500 miles of wholly-owned pipeline that transports nearly 30 billion cubic feet (bcf) per day to every major natural gas consuming market in North America. TransCanada's pipeline project management capabilities and experience are unparalleled in North America. For example, in the 1990s alone, TransCanada and its subsidiaries directly managed large-scale pipeline expansion projects across the continent with costs totaling approximately Cdn$14 billion. These capital projects included over 6,500 miles of large diameter pipe, almost 3.2 million horsepower of compression, and 376 custody transfer meter facilities. TransCanada's CDN $6.6 billion cross-Canada mainline expansion projects were delivered within a budget variance of 0.6 percent, and the overwhelming majority were completed on or before the original schedule. Similar performance was achieved on the company's Alberta expansion projects, as well as on its international projects. TransCanada currently is developing three major pipeline projects: the Alaska Pipeline Project and the Keystone Pipeline in Canada and the United States, and, jointly with other parties, the Mackenzie Valley Pipeline in Canada.

TransCanada possesses several other unique capabilities or attributes that can provide significant advantages with respect to the development of the APP:

- TransCanada Corporation, through its wholly-owned subsidiary Foothills, holds the certificate of public convenience and necessity to own and construct the Canada Section of the Project. While there remains a significant compliance process to be conducted through the Northern Pipeline Agency that will ensure the APP meets all current standards, the fact that Foothills is the party certified to proceed with the development of the Project constitutes a significant advantage over other potential applicants.
- Foothills has access rights to the lands required for the APP in the Yukon Territory by virtue of an easement that it has held since the early 1980s and continues to maintain through leasehold payments. In addition to these land rights, TransCanada is a recognized leader in building positive relationships with aboriginal communities. On this Project, it already has met with and provided pipeline project information presentations to community leaders of every First Nation in the Yukon and British Columbia whose territory would be traversed by the pipeline's route.
- Foothills has worked diligently for more than 30 years to bring Alaska's gas reserves to market by promoting and supporting the development of an Alaska natural gas pipeline. In this regard, Foothills has independently undertaken significant studies and evaluations of the engineering, route alternatives, rights-of-way and other legal requirements applicable to the construction of the Canada Section, as well as the continuing assessment of the value of Alaskan gas in markets in North America.
- Importantly, for more than 50 years, TransCanada has been an industry pioneer in the development of cutting-edge gas transmission technology, including technology

specialized for harsh, cold weather conditions like those that will be encountered by an APP. For example, TransCanada has developed a comprehensive pipeline design methodology and models that combine hydraulic simulation with geothermal analysis to predict flowing gas temperatures, the amount of frost heave and thaw settlement, and the structural response of pipeline in permafrost. This pipeline design model, as well as other cold weather design, materials, and construction technologies and systems, has been successfully applied to difficult projects in northern discontinuous permafrost areas, resulting in project cost reductions and increasing pipeline reliability and safety in the extreme conditions of northern Canada.

- Over the next three years, TransCanada plans to spend roughly $2 billion on projects in Alberta to expand its system to meet the growing and changing needs of its customers. These new projects, which will be completed in the northern portion of Alberta under cold weather conditions, will facilitate moving gas from Northwest Alberta to growing internal and export markets on the Alberta System.

TransCanada thus has developed a substantial inventory of sophisticated analytical, technical, and practical hands-on expertise in designing, building, and operating pipelines that deliver natural gas from the northernmost producing regions of Canada to growing markets across the North American continent. As this Application demonstrates, TransCanada's experience and expertise in constructing and operating 36,500 miles of pipeline, as well as its history and experience as a leading proponent of an APP, uniquely qualifies TransCanada to understand fully, and to meet, the key project management, regulatory, and commercial challenges presented by such a remarkably complex project, and to deliver the State a favorable net present value of anticipated cash flows, with a maximum likelihood of success.

2) Alaska Gas Pipeline Project Description

The Co-Applicants propose to construct an Alaskan gas pipeline project that will deliver natural gas from the ANS to all major markets in North America. The Project will include:

- *A gas treatment plant that will process approximately 5 bcf/d of residue gas from the existing Central Gas Facility at Prudhoe Bay*

  TransCanada does not intend to develop, own, and operate the Gas Treatment Plant ("GTP"), but is prepared to do so if it is not possible to contract with a third party owner in a timely manner.

- *A new pipeline system that will extend from the GTP in Alaska to Boundary Lake on the British Columbia-Alberta border*

  Assuming a committed volume in the initial Open Season of 4.5 bcf/d, the Alaska Section will be approximately 750 miles in length and 48 inches in diameter, with six compressor stations at start-up and five gas delivery points in Alaska; and the Canada Section pipeline will be approximately 965 miles in length and 48 inches in diameter, with ten compressor stations at start-up and eight intermediate delivery points in Yukon and to the principal delivery points at the Alberta Hub.

  The initial annual average daily capacity of both the Alaska and Canada Sections will be 4.5 bcf/d, with expansion capability up to 5.9 bcf/d through the addition of seven compressor stations on the Alaska Section and nine compressor stations on the

Canada Section. Further expansions would include a combination of additional compression and pipeline looping. Both the Alaska and Canada Sections will be buried, except at compressor and metering stations, and potentially at fault crossings, and some large river crossings.

The pipeline route will follow the route set out in the *Agreement Between Canada and the United States of America on Principles Applicable to a Northern Gas Pipeline* ("Agreement on Principles") and the *Northern Pipeline Act* ("NPA") (1977-78, c. 20, R.S. 1985, c. N-26). The Alaska Section generally will follow the route of the existing Trans Alaska Pipeline System ("TAPS") to Delta Junction, where it will continue in a southeasterly direction following the Alaska Highway, to a metering station at the Alaska/Yukon border, where it will connect with the Canada Section near Beaver Creek. The Canada Section then will continue to Boundary Lake on the British Columbia/Alberta border.

- *New build and utilization of existing pipeline infrastructure in Alberta*

  When Alaska's natural gas reaches the British Columbia/Alberta border, Foothills will construct the necessary additional facilities in Alberta to permit Alaskan gas to reach the Alberta Hub by integrating with TransCanada's existing pipeline system in Alberta and connecting to the Pre-Build. That system currently consists of approximately 15,000 miles of pipe, 50 compressor stations, 1,000 receipt points and 200 delivery points. It is both a physical and commercial system that offers buyers and sellers access to the largest natural gas trading hub in North America. TransCanada's Alberta System is interconnected to the major gas pipeline grid that transports gas to major consuming markets across North America, including markets in the Pacific Northwest and California, the U.S. Midwest, eastern Canada, and the U.S. Northeast. Given current projections of natural gas supplies available for transportation and export from the Western Canada Sedimentary Basin ("WCSB"), TransCanada's forward planning indicates that sufficient capacity should be available to transport available Alaskan production from the Alberta Hub to consuming North American markets without any significant additional downstream construction.

- *Fort Nelson Option*

  TransCanada is exploring options to move the Alberta System Receipt Point upstream of Boundary Lake, to Fort Nelson, British Columbia. The objective would be to deliver toll savings to the Alaska Shippers by providing them an equivalent toll from Fort Nelson to the Alberta Hub, as if the Pipeline System from Fort Nelson to Boundary Lake were integrated into the Alberta System.

- *Access to natural gas liquids extraction at existing facilities in Alberta*

  TransCanada's Alberta System is straddled by three natural gas liquids processing complexes owned by third parties. TransCanada expects that there will be excess capacity at these plants sufficient to process Alaskan gas. Therefore, TransCanada does not propose any new NGL facilities in this Application. In addition to existing NGL facilities in Alberta, Shippers may decide to develop new facilities in Alaska.

- *NGL Extraction Rights in Alberta*

  TransCanada is advocating an important change to Alberta's NGL extraction rights model through a regulatory proceeding presently underway. The recommended methodology change would ensure that Receipt Shippers receive their fair share of NGL value through the associated extraction rights. If this new model is approved, TransCanada expects that the marketplace will further mature and the liquidity for buying and selling extraction rights will increase.

- *Liquefied Natural Gas ("LNG") alternative*

  While its proposal does not include an LNG option, TransCanada is willing to consider offering gas treatment and transportation services from Prudhoe Bay to an LNG terminal should Shippers commit sufficient volumes to support such services in the initial binding Open Season.

3) TransCanada's Plan To Overcome Key Project Management, Regulatory, and Commercial Challenges

TransCanada's Application demonstrates that TransCanada has developed in the normal course of its existing business the required management systems and regulatory and commercial strategies that will enable it to overcome the key challenges to the successful development and construction of an APP, so as to maximize the likelihood of success of the Project with a very favorable net present value of anticipated cash flows to the State by staying on budget and on schedule.

a) Project Management Challenges

The key project management challenges that the AGIA licensee will face in constructing the Project include implementation of management structures and systems that will deliver an efficient, reliable, and safe high performance pipeline system operating in the extreme conditions of Alaska and northern Canada, within budget and on schedule.

TransCanada's plan to meet these challenges proposes to organize the Project into three main Project phases and time frames:

- *Project Development Phase*

  The project development phase is projected to commence in the 2nd Quarter 2008 with the issuance of the AGIA license and extend through August 2013 with the issuance by the Federal Energy Regulatory Commission ("FERC") of certificates of public convenience and necessity ("CPCN") authorizing the construction and operation of the Alaska Section.

  The development phase is divided into two sub-phases.

  The first sub-phase includes front end engineering design ("FEED") work, including the refinement of cost estimates, project schedules and associated engineering and environmental work to support the Open Season, as well as the development of detailed plans for the second sub-phase.

  The second sub-phase will begin with the conclusion of the Open Season and end when the major project milestone, "Decision to Proceed," is made. This is the

final go/no-go decision point in the Project. Inputs to this decision will include receipt of final regulatory approvals in Canada and the U.S.; receipt of binding bids for all major materials and equipment; receipt of binding bids for major construction contracts; financing in place; confirmation that project cost estimates remain in accordance with the parameters laid out in the precedent agreements with confirmed Shippers or other financial guarantors; all precedent agreement conditions being met or waived; and issuance of all final corporate approvals. FEED work in this sub-phase will include all technical work needed to support the regulatory filings and the preparation of detailed plans for the execution phase of the Project. The size of the construction work required for the Project will strain the capabilities of the North American construction market and require the purchase of additional construction equipment and certain specialized equipment. Accordingly, because lead times for such equipment have increased substantially in recent years, a portion of detailed engineering, procurement, and environmental planning/design for the project may occur during the development phase to support and expedite the issuance of requests for proposals for major materials, equipment, and construction contractors during the project execution phase.

- *Project Execution Phase*

  The project execution phase is projected to commence at the end of the development phase in August 2013 and conclude in November 2017 when all remaining permits and authorizations are secured, all pre-construction, construction, testing, and commissioning activities are completed, the pipeline is loaded, all major components are functioning, and commercial operations commence.

- *Pipeline Operations Phase*

  The pipeline operations phase will continue from the commencement of commercial operations until the pipeline system is no longer required and is removed from service. TransCanada will be the operator of the pipeline system and will be responsible for operations and maintenance activities and compliance with all applicable regulatory requirements. TransCanada also will be responsible for assessing the market demand for additional pipeline capacity at least every two years after the first binding Open Season, and for managing the development and execution of future expansion projects.

The successful completion of the development and execution phases of the Project – on time and within budget – will require the application of sophisticated and effective project management planning, systems, experience, and skills. As discussed in detail in this Application, TransCanada will designate a Project Management Team ("PMT") to oversee all aspects of the pipeline and facility work in Alaska and Canada. The PMT will be led by a TransCanada vice president, with management responsibilities divided among four directors: (1) a commercial director, who will be responsible for project finance, law, and customer service to Shippers; (2) a project services director, who will be responsible for pipeline design and operations planning for both the Alaska and Canada Sections of the Project, health and safety management, and accountability for project cost estimating, risk management, scheduling and cost controls; and (3) two project management

directors, one for the Alaska Section and one for the Canada Section, who will be responsible for the management of all technical design and construction work for the Project.

Project engineering, procurement, and construction management functions will be handled by outside contractors that specialize in the execution of major projects. TransCanada also intends to retain two environmental contractors, one each for the Alaska and Canada Sections. TransCanada's Alaskan and Canadian project management directors will direct the technical work of the contractor organizations, while the project services director will manage the contracts with the outside contractors, and oversee contractor procurement and logistics.

TransCanada estimates that a total of 3,750,000 labor hours will be required to complete the development phase of the Project in Alaska and Canada at a cost of about US$625 million. Approximately 450 total personnel will be assigned full time to the Project by the end of the development phase, including existing TransCanada personnel, new hires of qualified personnel in Alaska and Canada, and external contractor employees. TransCanada's corporate staff will provide additional support as required. The level of project activity will increase substantially as the Project moves into the execution phase. Within TransCanada, increased emphasis on implementation will mean that some groups working under the PMT will increase in size and others will decrease, while contractor labor forces will substantially increase as detailed design, procurement, logistics, and construction activities increase.

TransCanada will manage the development and execution phases through the application of a suite of processes, guides, and templates that have been standardized across the TransCanada organization under the auspices of the TransCanada Project Management Office ("PMO") to provide a disciplined, effective, and efficient methodology for project management. These processes and best practices cover all aspects of project governance, planning, and control. In addition, they are adaptable to all types of projects, and are scalable to accommodate projects of varying size, complexity, and risk profile, including the APP as proposed by TransCanada.

The PMO Guides define the performance expectations of project managers to help them effectively manage their projects. The PMO Guides are supported by specific templates and examples so that the project managers have the tools necessary to quickly develop the appropriate project plans. Executive governance is provided by a standardized gating process for the various phases of a project, reporting through standardized scorecards, and risk matrices that determine the amount of control required on a per project basis. Training in the PMO practices is provided to all project managers and project support groups in TransCanada so all have a common understanding of the key elements of project delivery. Mentoring and lessons learned provide ongoing feedback so that best practices are shared for continued project performance and delivery. Finally, quality process reviews are performed on all projects to ensure adherence to the PMO processes and to provide consistency in expectations across the organization.

The principal processes included in TransCanada's project management methodology include:

- *Standard control levels* that are put in place in each sub-project or component of the project to ensure that an appropriate level of effort is expended on controlling and managing the work. See Appendix B1 "PMO Project Controls Level Validation Guide".
- *Scope management plans* that define the main project parameters such as receipt and delivery points, receipt volumes, gas composition, pipeline route, length, diameter, pressure, and compression requirements. See Appendix B2 "PMO Scope Management Guide".
- *Schedule management plans* that identify, schedule, monitor, and manage the coordination between components of project work to ensure timely completion. A project master schedule and supporting detailed schedules for all aspects of the Execution Phase would be developed early in the Development Phase and would incorporate all project considerations including regulatory requirements and environmental, socio-economic, procurement, logistics and construction lead times and constraints. Schedules would be aligned with a detailed work breakdown structure for the project and the established project milestones, and would be maintained and updated continuously throughout the life of the project. See Appendix B3 "PMO Schedule Management Guide".
- *Cost management plans* updated during the development phase to include more detailed cost estimates based on field studies and preliminary engineering and procurement work, and that form the basis of a Project Baseline Budget for control during the execution phase. See Section 2.3.2 "Managing Capital Costs" and Appendix B4 "PMO Cost Management Guide".
- *Quality management plan*. See Appendix B5 "PMO Quality Management Guide".
- *Risk management plan*, including a risk register developed with input from experts to establish, continually evaluate and update main risk events that arise during the project. See Section 2.7 "Risk Assessment and Mitigation" and Appendix B6 "PMO Risk Management Guide".
- *Procurement management and logistics plans*, including guides for contractor qualification and contract administration. See Appendix B7 "PMO Procurement Management Guide" and Appendix C "Contractor Safety Management Guide".
- *Human resources management guide*. See Appendix B8 "PMO Human Resources Management Guide".
- *Communications and stakeholder management plan*, including information management and stakeholder management strategies. See Section 2.2.2 "Stakeholder Issues Management Plan" and Appendix B9 "PMO Communication Management Guide".
- *Regulatory management*, including the preparation of a detailed list of regulatory requirements, conditions, and authorization status checks, procedures to ensure that appropriate processes are being followed, and controls to ensure that results are as expected. See Section 2.2.4 "Regulatory Plan" and "Appendix B10" "PMO Regulatory Management Guide".

- *Safety management*. See Appendix E "HS&E Management System", Appendix C "Contractor Safety Management Program" and Appendix B11 "PMO Safety Management Guide".
- *Change control plan*, including issue/change identification and evaluation, internal and contractual issue/change approvals, change implementation, and lessons learned. See Appendix B13 "PMO Integration Management Guide".
- *Environmental management plans*, including project-specific environmental management strategies; environmental assurance measures to ensure proper processes are being followed; procedures for monitoring, measuring, and documenting operations with potential environmental impacts; environmental field studies and data collection; and maintaining accurate records of environment-related activities. See Appendix B12 "PMO Environmental Management Guide".

Other integral components of TransCanada's ability to manage the Project for the benefit of Alaska include its commitments to:

- establish an Alaska office;
- pursue Alaska hire and contracting with Alaskan businesses to the maximum extent permitted by law; and
- enter into a project labor agreement.

Fulfillment of these commitments will significantly contribute to the success of the Project.

In short, this Application demonstrates that TransCanada has developed and will implement the management structure and systems that will enable it to address the project management challenges of the Project so as to maximize the likelihood of success of the project and achieve a very favorable net present value of anticipated cash flow to the State.

b) Regulatory Challenges

The AGIA Licensee will face substantial regulatory challenges in developing and constructing the APP. The licensee will be required to obtain a significant number of permits, certificates, and authorizations from a variety of U.S. Federal and State, and Canadian federal, provincial, and territorial authorities in a timely and efficient manner, so as to minimize risk and uncertainty and expedite the construction and initial operation of the Project. Obtaining these authorizations requires: identifying the relevant permitting requirements; developing a strategy and timeline for pursuing and obtaining the required permits and authorizations; coordinating efforts between the various regulatory authorities; and developing and executing an effective stakeholder plan. The ability of the AGIA licensee to successfully manage these challenges will be critical to the ultimate success of the Project and the net present value of the Project to the State.

As described in detail in this Application and summarized below, TransCanada has the demonstrated ability to manage efficiently the myriad of issues presented by the complex regulatory requirements and to obtain the necessary regulatory authorizations on the required schedule. Employing its unique and substantial experience and expertise on

both sides of the U.S./Canada border, TransCanada has identified regulatory issues and potential hurdles to the APP up front, and has the skill and strategic insights to work cooperatively with the many jurisdictional agencies to obtain the required regulatory approvals in a manner that will result in a consistent set of regulatory requirements across the various agencies to expedite and facilitate the design, construction, and operation of the Project.

i) U.S. Regulatory Approvals

TransCanada's AGIA Application is based upon utilizing the *Alaska Natural Gas Pipeline Act* ("ANGPA"), 15 U.S.C. §§ 720-720n, for FERC certification of the Alaska Section of the Project in accordance with section 7 of the *Natural Gas Act* ("NGA"), 15 U.S.C. § 717f. As detailed in this Application, the Project meets the qualification criteria specified under section 103 of ANGPA and section 7 of the NGA, and TransCanada will be a "qualified applicant" for the requested certificate under ANGPA and the NGA and will be subject to the jurisdiction of the Commission.

With respect to the timing of seeking FERC certificate authority, TransCanada commits as follows, subject to the License being issued by April 2008:

- To conclude an initial binding Open Season within 18 months after issuance of the AGIA License.
- To apply for FERC approval to use the pre-filing procedures set out in 18 C.F.R. § 157.21 by June 2010.
- To apply for FERC CPCN to authorize the construction and operation of the Alaska Section and GTP by December 2011.

In addition to the FERC CPCN to be issued pursuant to ANGPA and the NGA, major U.S. regulatory approvals required for the Project include:

- Federal Right-of-Way Grant ("Federal ROW") issued pursuant to section 28 of the *Mineral Leasing Act*, 30 U.S.C. § 185.
- State Right-of-Way Lease ("State ROW") issued pursuant to the *Alaska Right-of-Way Leasing Act*, AS 38.35.10 – AS 38.35.260.
- Federal Wetlands Permits ("404 Permits") issued pursuant to section 404 of the *Clean Water Act*, 33 U.S.C. § 1344, with required State water quality certification pursuant to section 401 of the *Clean Water Act*, U.S.C. § 1341.
- Coastal Zone Management consistency determination issued pursuant to the Alaska Coastal Management Program, AS 46.39.010, et. seq. and AS 46.40.010, et. seq.
- *Clean Air Act*, Title V, Air Quality Operating Permit issued pursuant to AS 46.14.010 et. seq.
- Authorization to construct and operate the GTP under applicable State and/or federal law.

These permitting activities will be subject to environmental analysis and the preparation of an Environmental Impact Statement ("EIS") by FERC, in cooperation

with the other permitting agencies, in accordance with the requirements of the *National Environmental Policy Act* ("NEPA"), 42 U.S.C. §§ 4321, et seq., and as specified by ANGPA.

For over fifty years, TransCanada has successfully managed the varied and complex regulatory issues concerning the design, construction, and operation of its extensive, regulated natural gas pipeline systems. As a result of the location of certain of its existing pipeline assets, TransCanada has managed such undertakings in areas that share many of the same environmental and operating conditions to be experienced in Alaska's harsh, northern climates. In addition, through its many years of efforts dedicated to bringing Alaska's natural gas to market, TransCanada has demonstrated expertise and experience in preparing and prosecuting applications for obtaining, and maintaining, rights-of-way and other permits for the use of Federal and State lands and resources. Once again, TransCanada, through its 50-year operating experience has developed a significant base of knowledge and information, in addition to practical experience, with regard to the specific regulatory issues and hurdles that must be overcome to complete an APP. TransCanada is obviously comfortable in the world of regulated businesses since the overwhelming majority of its existing assets consists of regulated natural gas transportation and storage infrastructure.

Utilizing its substantial experience in supporting and developing an Alaska natural gas pipeline, TransCanada will develop and implement an effective regulatory strategy to manage these often complex regulatory processes, many of which will be undertaken contemporaneously. This strategy will ensure that the timing of these various processes is coordinated, and proceeds in a manner that is most likely to result in the timely issuance of the required authorizations. In addition, it will ensure that, where agencies and/or permitting processes involve similar or overlapping concerns, those concerns will be addressed through coordinated efforts of TransCanada and the relevant agencies to develop terms and conditions for each of the permits that are consistent with each other, while addressing each agency's regulatory needs. Such coordination at the permitting stage will help avoid delays as the Project moves towards and proceeds through construction to operation, and, therefore, help maximize the likelihood of successful construction of the Project and the net present value of anticipated cash flows to the State.

ii) Canadian Approvals

The NPA is the primary legislative vehicle through which necessary regulatory approvals have been and will be delivered or coordinated in Canada for the APP. Pursuant to the NPA, Foothills, through various subsidiaries, holds certificates of public convenience and necessity for each of the zones of the APP in Canada. TransCanada's Foothills Subsidiaries already own and operate certain Canadian sections of the APP, known as the Foothills Pre-Build, for which they hold certificates issued under the NPA. The initial Foothills Pre-Build was constructed in the early 1980s and currently moves western Canadian gas to market. The certificates issued to the Foothills subsidiaries have no expiration date. The NPA provides a single window, expedited regulatory approval process for the continued development of the APP.

The principal remaining approvals required for construction and operation of the APP through Canada include:

Leave to Proceed order (NPA §§ 7, 12 and Schedule III to the NPA, as amended) from the Designated Officer ("DO") for the APP.

- Designated Officer Approval and Certification of the various Plans, Profile, and Book of Reference (NPA § 7; NEB Act §§ 36, 38) required to ensure compliance with current standards.
- National Energy Board (NEB) Approval of the Tolling Methodology and Tariffs (Part IV).
- NEB Leave to Open (NEB Act § 47).
- Other Federal approvals, including authorizations under the *Fisheries Act*, R.S.C. 1985, c. F-14, the *Navigable Waters Protection Act*, R.S.C. 1985, c. N-22, and the *Species at Risk Act*, S.C. 2002, c. 29.
- Provincial and Territorial approvals.

In addition, although Foothills has easement rights for the entire APP route through Yukon, it will need to obtain rights to land in British Columbia and Alberta.

As in the case of the U.S. regulatory challenges described above, TransCanada has a distinct advantage in overcoming the Canadian regulatory challenges. In Canada, there has been no legislation enacted providing for expedited certification of any project other than the Foothills project. Because TransCanada's Foothills Subsidiaries have engaged the NPA regulatory process on numerous occasions (the latest of which was in 1998) to build and expand the Foothills Pre-Build, it is a familiar and well-understood process. Finally, as a result of its substantial experience in the responsible development and reliable operation of North American energy infrastructure, TransCanada has acquired valuable expertise in Canadian regulatory requirements and has established a solid track record with Canadian stakeholders, which will be of substantial value in expediting the required regulatory approvals.

With regard to the timing of seeking regulatory authorizations of the Canada Section of the Project, TransCanada will target to finalize relevant Canadian approvals by the same date as the FERC Certificate.

iii) Transportation Rates

TransCanada commits to propose and support before regulatory bodies the following actions with regard to rates for transportation services. These actions, which are more fully described in the Application, are designed to provide strong incentives for explorers to seek new gas reserves and for Shippers to commit their gas resources to the Project, fairly spread risk among the various stakeholders in the Project, provide a very favorable net present value of cash flows to the State, and ensure TransCanada, as the developer and owner of the Project, a reasonable, regulated rate of return on its investment. The tolls calculated in Section 2.10.1 "Economic Viability" are consistent with the assumptions provided by the State and TransCanada's capital cost estimates and financial parameters. It is important to note that these tolls are likely to

change as more detailed engineering work is completed and economic assumptions are updated.

TransCanada will propose a Recourse Rate for the Alaska Section. The Recourse Rate concept is not commonly applied in Canada, and as such, TransCanada will only offer Negotiated Rates for the Yukon-BC Section. The 100% load factor Recourse Rate for the Alaska Section will be $1.06/mmBtu (constant 2007 dollars), excluding fuel retention. The Recourse Rate will be established using rate design principles that initially provide for the full recovery of capital costs on a straight-line basis over a 25-year period, assuming initial Transportation Services Agreements are for 25 years, and that charge 100% load factor rates for authorized overrun services. TransCanada estimates the initial rate base for the Alaska Section will be approximately $11.7 billion (constant 2007 dollars), inclusive of AFUDC, and property tax paid during construction and excluding the total amount of State reimbursement under AGIA. In compliance with the RFA requirements, the estimated Recourse Rate and initial rate base are calculated without taking into consideration inflationary effects on costs and are therefore expressed in 2007 constant dollars. The rate of return on equity will be set annually at 965 basis points above the rate for U.S. 10-year Treasury Note in effect at the beginning of that year. This would result, for example, today, in a return on equity of 14%. This rate will be adjusted for capital cost performance as described in the Application.

In addition to the Recourse and Negotiated Rates, TransCanada commits to offer the following additional ratemaking methods and incentives. The rate of return for Negotiated Rate Shippers and for Recourse Rate Shippers may be adjusted downward for the first five years following the In-Service Date according to TransCanada's performance in controlling construction costs. TransCanada could suffer a return reduction of up to 2 percent, depending on the variance between the budgeted costs of the Project and the actual costs. This incentive scheme provides considerable motivation for TransCanada to deliver the Project on schedule and on budget.

A Negotiated Rate will be offered in the Alaska and Yukon-BC Open Seasons, based upon a 25-year levelized rate model and 25-year contract term. Rates will be set to recover 100 percent of capital costs, including Allowance for Funds Used During Construction ("AFUDC") and contingencies, approved for cost recovery in the FERC certificate and the NPA certificate over the 25-year contract term. In order to provide more flexibility to Negotiated Shippers in the Open Season, TransCanada, in addition to the basic 25-year contract term, will offer both the Alaska and Yukon-BC Sections term-differentiated Negotiated Rates based upon 30 and 35-year levelization periods and contract terms.

In addition to the 25-year levelized rate model described above, or the 30 or 35-year term differentiated rates, the offered Negotiated Rates will be based on firm transportation commitments in the Open Season for deliveries to the Alberta Hub. These rates would reflect no fixed cost allocation to balancing services, authorized overrun service or pipeline penalties / credits as well as a 100% load factor for billing determinants for volumetric charges. TransCanada estimates the 100% load factor levelized Negotiated Rates for the Alaska Section and Yukon-BC Section would be nominal $0.99/mmBtu and $0.80/mmBtu, respectively, excluding fuel retention.

Negotiated Rate Shippers will be required to agree not to seek or support any changes to the economic parameters underlying the Negotiated Rates design at FERC and NEB, for the duration of their shipping contracts.

As an inducement to attract shippers in the initial Open Season, TransCanada is prepared to offer equity participation opportunities to shippers that subscribe for a threshold volume in the initial Open Season. TransCanada believes that offering potential shippers an ownership option will significantly enhance the likelihood of having a successful initial Open Season and will encourage alignment of interests between the Project's sponsors and shippers in appropriate areas. TransCanada strongly believes and envisions that an alignment of interests among the State, ANS Producers, other shippers and TransCanada can result in the expeditious completion of the Project to benefit all stakeholders.

TransCanada has extended and expanded its Canadian infrastructure which has resulted in tremendous basin development in the WCSB through the utilization of rolled-in tolls for expansions of its system. Therefore, in accordance with AS 43.90.130(7), TransCanada is committed to offering rolled-in rates, including fuel costs, for capacity expansions on the pipeline. Toll design based on full rolled-in principles will be used for all expansions in Canada. In Alaska, rolled-in rate treatment will apply up to the level at which the resulting rates would exceed the initial rates for the Project by more than 15%. Any expansion costs that would cause the rolled-in rates to exceed 115% of the initial rates would be recovered on an incremental basis. However, if subsequent expansions allow full inclusion of the previous expansion cost without causing the resulting rolled-in rates to exceed the initial rates by more than 15%, the new rolled-in rate will be calculated by including the maximum possible amount of undepreciated expansion costs excluded from the previous rolled-in treatment, to provide a new rolled-in rate that remains within 115% of the initial rates. Similarly, TransCanada will provide rolled-in toll treatment in accordance with AS 43.90.130(7) for all new facilities that are an integral part of Pipeline System expansions.

Finally, subject to achieving sufficient volumes to the Alberta Hub to allow the Project to be constructed, TransCanada commits to offer firm transportation service to delivery points in the State as part of the tariff regardless of whether any Shippers bid successfully in the Open Season for firm transportation delivery service to delivery points in the State. Such service will be available to any in-State Shippers that execute long-term firm transportation contracts for service on the in-State zone. Consistent with FERC's Open Season regulations, the Alaska Section would provide a distance sensitive transportation rate for deliveries and receipts within the State. If acceptable to FERC, one single in-State zone based on weighted average volume distance will be created to represent all in-State deliveries. In accordance with AS 43.90.130(12), TransCanada commits to provide a minimum of five in-State delivery points, including connections at Fairbanks and at Delta Junction, with one of these points anticipated to make gas available to a potential intrastate pipeline delivering gas to the Alaska Rail Belt region.

TransCanada is comfortable with offering such an aggressive and complete suite of rate and tariff options because it knows the risks and rewards of regulated

transportation businesses. TransCanada is confident that reliance on competitive market forces and sound project design and development will yield adequate returns to its shareholders with a reasonable allocation of risks among stakeholders.

c) Commercial Challenges

The significant commercial challenges confronting the APP have prevented the Project from becoming a reality for nearly 30 years. The combination of complexity, scope, cost, and long development time entails significant risk for project participants. TransCanada believes that because of this risk, and the corresponding uncertainty of whether there will be sufficient economic rewards, despite the current and projected demand for natural gas, ANS Producers have been reluctant to commit the proven reserves they currently control to the Project. As a result, the Project has not been able to obtain credit support to date.

Implementation of AGIA can be an important step toward addressing the reluctance of resource lessees to commit to the Project. TransCanada believes that its proposal to construct the APP as the AGIA licensee and as detailed in this Application can successfully address the majority of the commercial challenges facing expeditious construction of the APP and overcome the existing lack of Shipper confidence that the return on their gas reserves will be favorable.

TransCanada's commercial plan is designed to attract potential Shippers, including the current ANS Producers, to commit to ship their natural gas on the Project. TransCanada's lengthy, proven track record of developing and constructing pipeline infrastructure in North America on time and within budget, its proven history of flexibility and creativity in devising alternative commercial arrangements to achieve the right balance of risk and reward for project participants, and its solid record of economic, reliable, and safe pipeline operation should provide Shippers with confidence in TransCanada's cost estimates and commercial terms for the Project.

Moreover, as discussed above, TransCanada's Application is based on several factors unique to TransCanada that will contribute to lower development, construction, and operation costs for the Project and, in turn, greater return for shippers. For example, TransCanada's proposal to utilize the established infrastructure of the Alberta System will ensure that Canadian, as well as Alaskan, shippers will contribute to the costs of a portion of the pipeline. In addition, Shippers will have valuable access to all major North American markets through existing infrastructure beyond the Alberta Hub. Moreover, Foothills' position as the only pipeline authorized under the NPA to receive expedited approval for construction of the Canada Section will contribute significantly to lower up-front development costs. Further, TransCanada's experience and familiarity with the regulatory issues and requirements specific to the Project will enable it to move as expeditiously as possible to complete those requirements in a timely manner. TransCanada notes in this regard that it commits to concluding an initial binding Open Season for transportation commitments by Shippers within 18 months of the AGIA License being issued by April 2008, 18 months earlier than the deadline required by AGIA at AS 43.90.130(3)(A).

TransCanada's proposed rate structure is also designed to bolster Shipper confidence in committing to transport ANS natural gas on the Project. As discussed above, the rate elements included in TransCanada's proposal reflect TransCanada's ability and

willingness to set initial tolls as low as possible, to share risk through rate of return penalties, and to offer rolled-in rates for system expansions. This combination of incentives for early Shipper commitments and sound execution by TransCanada will contribute significantly to the reduction of project risks and increase the rewards associated with the Project for all participants, including netbacks to resource lessors and lessees.

In addition, TransCanada will work with the State to jointly seek authorization to use the Federal loan guarantee available for the APP to fund any construction cost overruns. Negotiated Rate Shippers will have the option to repay those loans using a toll surcharge that is only to be paid when natural gas commodity prices at the Alberta Hub are above a pre-determined minimum threshold. This arrangement would provide Shippers with the certainty that their netbacks will never fall below a specified level because of pipeline toll requirements. TransCanada also is prepared to offer equity participation opportunities in the Project to Shippers that subscribe to a minimum percentage of total capacity in the initial binding Open Season. If exercised, this option will encourage alignment of interests among TransCanada, the State, and the Shippers on such matters as construction cost control, early in-service date and gas treatment plant integration with existing ANS facilities.

TransCanada has designed its commercial plan to maximize the opportunities to attract sufficient Shipper capacity commitments during the initial Open Season to enable TransCanada to secure financing to proceed with the development of the Project. TransCanada also offers a solid alternative credit concept that, in conjunction with its plans to meet key project management and regulatory challenges, aims to achieve timely completion of the APP.

TransCanada, in partnership with the State, would seek to establish a mechanism through which the U.S. Government would assume some or all of the initial risk of the Project by acting as a "bridge shipper." The assumption of such initial risk by the U.S. Government through the "bridge shipper" mechanism would reduce significantly the risk and lead time of the Project by allowing for an identifiable in-service date. This certainty of timing in turn should induce resource explorers to prove and develop new Alaska gas supplies and create greater predictability for all resource lessees of the cost of the infrastructure, and, therefore, the ultimate return on their gas. As a result, the existing ANS Producers and other lessees would be more likely to commit to capacity in the pipeline. Once the full initial capacity of the pipeline is under contract, the U.S. Government's obligations under the backstop shipping mechanism would be terminated. As part of this alternative credit concept, TransCanada commits to file its FERC application for certificates of public convenience and necessity and to advance towards the necessary Canadian approvals, even if sufficient Shipper commitments are not obtained during the Open Season.

As a final matter, TransCanada believes that its willingness and ability to adapt to changing circumstances and developments as its proposal is implemented will be critical to making the APP a reality. There will be many obstacles that arise that will require TransCanada, the State and other project participants to explore alternative pathways to a successful project. One example of this is TransCanada's proposed LNG alternative.

Although pursuit of such an alternative is not TransCanada's preferred approach now, it may prove to be a viable alternative for advancing the Project at a later time.

4) TransCanada's Proposed Project Demonstrates Economic Viability and Will Provide Very Favorable Net Present Value Cash Flows To The State

TransCanada has performed a comprehensive Project Viability analysis employing EIA gas price forecasts, and tax, exchange rate and interest rate benchmarks as required by the State in the AGIA RFA. This analysis confirms that the Project as proposed by TransCanada is expected to be profitable for all the major stakeholders. Assuming the committed volume in aggregate is 4.5 bcf/d, TransCanada's proposed Project yields an expected aggregate undiscounted direct cash flows during the first 25 years of operations commencing in 2018 of:

- $207 billion to the Alaska Shippers after taxes and royalties;
- $131 billion to the State of Alaska;
- $52 billion to the United States federal government; and
- $17 billion to TransCanada in equity return.

One of the key components in achieving these cash flows is a very favorable toll for the Project. The total cost of shipping Alaska North Slope natural gas from Prudhoe Bay to the Alberta Hub, inclusive of the GTP processing tariff and fuel charges, is estimated to be $2.95/mmBtu in 2018, gradually increasing to $3.57/mmBtu in 2042. Of this amount, $2.57/mmBtu is the levelized toll for the entire 25 years and the remainder is comprised of fuel charges that increase over time as a result of underlying gas price assumptions.

TransCanada has also identified the Fort Nelson option to further enhance the efficiency of the tolls for transportation within Canada to the Alberta Hub/NIT. As discussed earlier, if TransCanada is successful in moving the Alberta Hub/NIT from Boundary Lake to Fort Nelson, this would provide the Alaska Shippers a toll savings in the range of $0.15/mmBtu to $0.20/mmBtu. This toll savings would produce a net increase in after-tax netback to the Alaska Shippers of approximately $2.6 billion to $3.4, and an increase in Alaska's royalty and tax revenues of approximately $2.8 billion to $3.7 billion, over a 25-year contract term.

Moreover, given the optimal design proposed by TransCanada, an examination of the viability of various expansion scenarios demonstrates that the rolled-in tolls for the expansion cases assessed by TransCanada from the 4.5 bcf/d initial capacity up to 7.2 bcf/d will fall below the 115% threshold of the initial 4.5 bcf/d tariff/toll. TransCanada firmly believes that the ability to expand the system numerous times, utilizing rolled-in tolling methodology, not only will encourage robust exploration and discovery of new gas on the Alaska North Slope, but will yield tremendous additional economic activity through the exploration and development expenditures and resulting increased production.

One aspect of the economic viability analysis that may be of particular interest to the State is the analysis of the breakdown of the State's anticipated cash flows over the initial 25-year period. The overwhelming majority of the revenue stream is from the production taxes which yield $61.5 billion or 47% of the total anticipated cash flow. $30.8 billion (23%) is derived from royalties and $25.0 billion (19%) is derived from income taxes. Another $14.2

billion or 11% is derived from property taxes. And the net present value of these revenue streams, as calculated using the AGIA specified discount rates, are significant.

TransCanada is well aware of the many risks and variables that could affect the anticipated cash flows from the Project. In order to have a sense of the impact of such variables, TransCanada's analysis includes a number of sensitivity evaluations. All of these demonstrate a strong likelihood of consistent, significant upside potential for the State, Shippers and the Project.

TransCanada has also provided the results of its in-house proprietary simulation models to confirm the design as optimum and technically viable. While there are certainly technological hurdles to be overcome and much additional technological innovation to be perfected which would further advantage the Project, the presentation of the results of its simulation model confirms that the Project design is technologically feasible and within acceptable technical operating parameters under various operating conditions.

5) Conclusion

The State of Alaska has enacted AGIA for the seminal purpose of securing a reliable, experienced business partner to develop the key to unlocking its vast natural gas resource potential – the transportation infrastructure. As has been demonstrated with major airport hubs and urban mass transit and highway infrastructure, such backbone facilities spur economic development. AGIA, through its required application for necessary federal authorizations and contribution to such regulatory expenses, focuses the State's investment where it is needed most – on development costs of the transportation infrastructure. But to achieve the ultimate result of the construction and operation of the transportation infrastructure, the State must have a reliable, experienced pipeline development partner. TransCanada is confident that it is just such a partner.

First, the Project TransCanada has proposed will yield significant cash flows to all Project stakeholders, particularly the State of Alaska. The economic viability of the Project demonstrated by the anticipated cash flows will prove to be a substantial inducement for all stakeholders to advance the Project now.

Second, TransCanada's proven management and regulatory experience and expertise provides a great deal of assurance that the anticipated cash flows can be achieved; that the TransCanada Project has the best likelihood of success.

Third, TransCanada has confidence in competitive, but regulated, energy markets. TransCanada believes that entities make rational business decisions when presented with reasonable commercial terms. TransCanada has endeavored to present such a balanced, competitive development model to attract necessary equity and debt financing as well as transportation customers.

Fourth, TransCanada's proposal is aligned with the State's objectives and principles.

Fifth, TransCanada remains, as it has for the past three decades, committed to building an Alaska natural gas transportation system. The North American energy market must develop its resources. It is needed to fuel robust economies. It is needed to contribute to regional energy security. Now is the time. TransCanada is committed to see the Project to a successful conclusion – finally.

In sum, this Application demonstrates in detail the measures that TransCanada proposes to take to overcome the key project management, regulatory, and commercial challenges that face bringing ANS natural gas to market, and the critical economic and Project implementation commitments required to ensure the Project's success. Because TransCanada's proposal maximizes the likelihood of success of the Project under AGIA, coupled with the very favorable net present value to the State, the State should issue the AGIA license to TransCanada.