Semi-Annual Report to the Alaska Legislature

Federal Energy Regulatory Commission Docket No. PF 09-11-000

This report covers the period:

November 1, 2010 through April 30, 2011

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Introduction

This report from the Department of Revenue (DOR) and Department of Natural Resources (DNR) is submitted as a supplement to reporting required under AS 43.90.400, the Alaska Gasline Inducement Act ("AGIA" or "the Act"). This report covers the time period from November 1, 2010 through April 30, 2011.

AGIA was passed by the Legislature on May 16, 2007 to encourage expedited construction of a natural gas pipeline from Alaska's North Slope. The Act instructed the DOR and DNR Commissioners to solicit applications for a license to receive certain inducements from the state. After review of the submitted applications, the Commissioners recommended a license be jointly issued to TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd (jointly referred to as "TC Alaska" or the "Licensee"). The recommendation was approved by the Legislature on August 1, 2008 and the license issued and signed by the Commissioners on December 5, 2008.

In exchange for making certain schedule, tariff, and expansion commitments to advance the project, the AGIA licensee is entitled to receive certain inducements including:

1. The assistance of a dedicated Coordinator with authority to expedite permitting;
2. Fixed tax and royalty terms for a specified period of time for gas which is committed during the first open season of the project;
3. Up to $500 million reimbursement from the Alaska Gasline Inducement Act reimbursement fund for qualified expenditures; and
4. A commitment by the State that it will not provide certain financial or fiscal benefits to proposed pipelines that would compete with this project

AS 43.90.400 requires the DOR and DNR Commissioners to submit a report to the Legislature on the status of reimbursements within the first 10 days of each regular session. The report must include a list of all disbursements made from the AGIA fund during the preceding fiscal year, a written justification for each disbursement and the projected amount of money that will be required for future disbursements during each of the next three fiscal years. This report from the DOR and the DNR is submitted as a supplement to the Reimbursement Report required under AS 43.90.400.

In addition to information required under AS 43.90.400, this report includes information related to the progress of the pipeline project and updates on natural gas markets. Additional information related to the Project can be accessed online at:

http://www.gasline.alaska.gov/.

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1. Executive Summary

The AGIA-licensed gas pipeline project continues to advance under the joint effort between TransCanada and ExxonMobil Corporation, called the Alaska Pipeline Project ("APP" or "Project"). At the close of its open season on July 30, 2010 APP announced that it had received multiple bids for significant volumes from major industry players and others. The Project reports that it continues to negotiate with entities that bid during the open season to reach precedent agreements.

Under its license with the State, TransCanada remains obligated to submit a complete application for a Certificate of Public Convenience and Necessity (CPCN) with the Federal Energy Regulatory Commission (FERC), accepting the CPCN if it is awarded and sanctioning the project subject to certain conditions as described in AS 43.90.200. Under the timeline advanced by APP the Project remains on schedule to file for a CPCN with FERC in October 2012.

Over the past five months the Project has continued to make progress on defining the pipeline route in advance of filing for a CPCN. APP employees and its contractors are refining the specifications for the pipeline and the proposed gas treatment plant which will be located in Prudhoe Bay. The Project has met monthly with staff from the Alaska Gasline Coordinator's Office to update the state on that progress.

From November 2010 through March 2011 APP engaged in workshops and meetings with state and federal agencies to discuss technical programs, refine information delivery and permit requirements and provide progress updates.

Beginning in March 2011 APP initiated a second round of community open house meetings in 34 Alaska communities located near the two pipeline route options. Representatives from the State, the Office of the Federal Coordinator and FERC attended most of these meetings, which concluded on June 2, 2011.

On April 29 APP filed preliminary draft resource reports one and ten with FERC providing a description of the proposed project and alternatives, in preparation for the FERC led NEPA review of the project and its application for a CPCN. The filing of these reports is a significant milestone in the regulatory process for commercializing Alaska North Slope natural gas. APP anticipates that FERC will issue a Notice of Intent to prepare an EIS sometime this spring or summer 2011. FERC is expected to hold public scoping meetings in communities located near the pipeline routes by January 2012.

Since the State's last report to the Alaska Legislature in October 2010 more Alaskans and Alaska-based service providers are participating in this project. According to reports from the APP the total number of Alaskans employed to date increased from 325 to 475, and the number of Alaska-based service providers increased from 34 to 41.

To prepare for the anticipated construction of a natural gas pipeline, the Alaska Department of Labor and Workforce Development continues its efforts towards implementing the Alaska Gasline Strategic Training Plan to enhance existing training programs to assist Alaskan workers in acquiring and upgrading the necessary skills to obtain work on the gasline.

2. ALASKA GASLINE INDUCEMENT ACT REIMBURSEMENTS

2.1 Reimbursement Quick Facts

What is the purpose of the reimbursement?

The Act provides for a natural gas pipeline construction incentive of $500 million in "matching" capital reimbursements to the Licensee, TransCanada Alaska (TC Alaska), for qualified expenditures. Qualified expenditures are those expenditures that are directly and reasonably related to the development and construction of a natural gas pipeline. Reimbursements are available for a seven-year period immediately following the date the license was awarded. Prior to the close of the first, binding open season TC Alaska, was entitled to receive reimbursements for up to 50 percent of its qualified expenditures. When the first, binding open season closed on July 30, 2010, TC Alaska became entitled to receive up to a 90 percent reimbursement of its qualified expenditures. *See AS 43.90.110*.

The reimbursement is not a giveaway. TC Alaska, as the Licensee, must spend its own money (as a qualified expenditure) in order to collect anything from the state.

Why reimbursements?

The reimbursement incentive does not guarantee that a pipeline would be built. No business or political entity would commit to building a multi-billion dollar project unless the economics justify doing so.
The reimbursement provision was included as a financial incentive to encourage the Licensee to identify the cost of a project to a sufficient degree of detail that the Licensee could conduct an open season to determine whether there was sufficient commercial interest to move a pipeline project forward. In addition, the reimbursement incentive was intended to require the Licensee to advance the project forward to certification by the Federal Energy Regulatory Commission (FERC).

For potential shippers the capital reimbursement match "sweetens" the pot because money spent by the state is not eligible for inclusion in the rate base. In other words, whatever the cost of the project, $500 million will be deducted from the total in calculating the "cost of service" that establishes the transportation rate. All shippers benefit from a lower tariff.

Is it working?

So far the reimbursement appears to be working to advance the Project through the FERC certification process. As an incentive, the reimbursement created commercial interest and several entities applied

for the license. TransCanada Alaska (TC Alaska) obtained the license. TransCanada is one of the largest and most experienced gas pipeline companies in North America. When ExxonMobil partnered with TC Alaska to form the APP, the Project received the expertise of one of the world's foremost oil and gas corporations, with special expertise in constructing gas treatment facilities. The APP went on to hold the first ever Open Season for Alaska North Slope natural gas.

Beyond encouraging efforts to construct a major gas pipeline, the reimbursement provision also ensured that a project built under the Act would contain provisions that are favorable to the state, including:

1. Ensuring a process for constructing a gas pipeline that includes specific Alaska "must have" requirements pursuant to Alaska Statute (AS) 43.90.130. These "must haves" include:

   A. Requiring the Licensee to commit to a project timeline

   B. Requiring off-take points for gas to be available for instate use

   C. Requiring distance sensitive rates so that Alaskan consumers pay an appropriate price for transportation of utility and industrial gas

   D. Allowing for future pipeline expansion opportunities—so that future explorers are ensured that their gas will have an opportunity to reach the market

   E. Mandating rolled-in rates for pipeline expansion to make access to the pipeline affordable to future shippers; and

   F. Cementing the commitment for Licensee to seek FERC certification

2. Providing an opportunity for interested parties to bid to become the Licensee

3. Creating a competitive environment that maximizes the opportunity for the state to realize a 30 year old goal to commercialize Alaska North Slope gas and demonstrating the state's resolve to move the project forward by putting some "skin in the game" in the form of an incentive investment

4. Providing immediate economic benefit toward the state's net present value (NPV) for the project that will cover the cost of this investment, i.e., the reimbursement will be <u>excluded</u> from the tariff rate charged by the company, and

5 Requiring the Licensee to advance a natural gas pipeline project to the point of certification by the Federal Energy Regulatory Commission (FERC) – a stand alone benefit worth the value of the state's reimbursement inducement.

2.2 Reimbursement Information System

In FY 2011, $250,000 was appropriated for development of an AGIA Information Reimbursement System (AIRS). The new system will improve the process by which project expenditure data is collected, tracked, reviewed, and reported. Once complete, the new system will replace the manual Excel based system which is currently in use.

Initial design of the reimbursement process and workflows were completed in 2009. In 2010, work focused on the business process analysis and software requirement specifications. The detailed technical design and construction of the reimbursement information system is progressing. The external user application shown to TC Alaska staff in mid January 2011 is 75% complete based on having a usable infrastructure available to develop, test, deploy and implement. Once the infrastructure is in place, the external application will be made available to TC Alaska for user testing in May 2011. The internal application is 70% complete and reporting is the next area of application development. AIRS was expected to be completed in May 2011 but IT challenges for developing system infrastructure have delayed completion and testing of the automated system until later this summer. The new system automates several manual functions, saves time and makes for a more efficient process for the department and TC Alaska.

2.3 Fund Disbursements

As of March 31, 2011, TC Alaska has been reimbursed a total of $ 49,391,442 for expenditures submitted through the third quarter (3Q) of 2010. Timing and detail of payments can be found in Table A (SEE pg. 9). Expenditures are reviewed monthly and payments are made on a quarterly basis.

Table B (SEE pg. 10) provides a summary of reimbursement requests received and reimbursed through the March 31, 2011 financial reporting period. An additional reimbursement of $357,651 for exceptions was paid in April after the financial reporting cutoff and is not included in the attached summary tables. To date the State has reimbursed TC Alaska a total of $49,749,093 at the 50% and 90% rate for expenditures and exceptions submitted through the third quarter (3Q) of 2010. TC Alaska has submitted a total of $114,552,714 in gross expenditures for review. Of this amount, $16,090,808 was taken exception to and not reimbursed. These expenditures are undergoing further review following the standard process established by the reimbursement procedures.

An additional $2,499,260 was held in reserve pending receipt of additional information. Additional information from TC Alaska was received on April 29, 2011 and will be processed during Q2 2011.

2.4 Requested Reimbursement and Reimbursement Forecast

On March 7, 2011, TC Alaska submitted its fourth quarter (4Q) 2010 reimbursement claims, with gross

expenditures of $21,266,676. These expenditures are currently under review, along with exceptions from prior periods, for which additional information was requested. TC Alaska's initial open season concluded on July 31st 2010. This marked the change in reimbursement rate from 50% to 90% for qualified expenditures. The 4Q 2010 reimbursement claim contains primarily 90% reimbursable costs. The next reimbursement payment to the Licensee was made May 19, 2011.

The department anticipates that it will receive, review and reimburse claims for 4Q 2010 and 1Q 2011 prior to the end of FY 2011. Due diligence review of 1Q 2011 is currently in progress. The forecasted reimbursement payout for the remainder of FY 2011 is approximately $57M and is also summarized in **Table A** (SEE pg. 9).

The sum of $60 MM was appropriated from the general fund to the Alaska Gasline Inducement Act reimbursement fund (AS 43.90.400(a)) for the natural gas pipeline project construction inducement under AS 43.90.10(a)(1). The Governor requested $160MM in the original budget on December 15, 2010. Currently, the projected FY 2012 payouts exceed the available AGIA funding. The approved appropriation of $60 MM will cover reimbursement payouts for incurred costs into December 2011. At that point there are no available funds to pay for reimbursement claims for incurred costs for the activity period 1Q 2012 due to be paid by the end of FY 2012. With $60MM as the approved appropriation at this time, a supplemental will be required to continue making reimbursement payments due in June 2012.

2.5 Estimated Project Spending

The figures in **Table 1** (SEE next page) are based on TC Alaska's 1Q 2011 Budget Report. They show the projected amount of money required for reimbursement during each fiscal year until the Licensee is scheduled to obtain a FERC Certificate. The rate of spending could vary as the project moves forward. Rate of spending, for example, could increase substantially based on the degree to which certain project uncertainties and conditions precedent can be resolved early in the process.

See pp 9-11 for following tables:
Table 1. Estimated Project Spending Through FERC Certification (Thousands)
Table A. AGIA Reimbursement Summary FY2010, 2011 Actuals & FY2011 to FY2014 Forecast
Table B. AGIA Reimbursement Request Summary—by Project Region as of QE September 30, 2010
Table C. Reimbursements by CBS Category—as of QE September 30, 2010

Table 1. Estimated Project Spending Through FERC Certification (Thousands)*

Fiscal Year	Pre-License (Pre-Dec 2008)	2009	2010	2011	2012	2013	2014	TOTAL
Total Annual	$4,100	$20,402	$102,137	$176,709	$209,078	$114,960	$90,000	$717,387
TC/EM	$4,100	$16,043	$69,404	$53,822	$48,482	$15,049	$10,487	$217,387
State of Alaska	$0	$4,359	$32,733	$122,887	$160,597	$99,911	$79,513	$500,000
Total Cumulative	$4,100	$24,502	$126,639	$303,349	$512,427	$627,387	$717,387	$717,387
TC/EM	$4,100	$20,143	$89,547	$143,369	$191,851	$206,900	$217,387	$217,387
State of Alaska	$0	$4,359	$37,092	$159,980	$320,576	$420,487	$500,000	$500,000

* The State's fiscal year runs from July 1 to June 30. Comparative spending after July 2010 reflects a change in the State's matching contribution from 50/50 to 90/10 following the open season; reflects adjustments from budget estimates included in TC Alaska's November 2007 AGIA application; Costs have been accounted for on an incurred/committed basis; i.e., the reimbursements included in the same time frame in which the qualified expenses are incurred.

Table A
AGIA Reimbursement Summary
FY 2010, 2011 Actuals and FY 2011 to FY 2014 Forecast
AS 43.90

Year	Quarter	Reimbursed Qualified Expenditures	Date Paid
2009	1Q Total	$1,095,786	12/17/09
2008	4Q Total	$40,230	2/26/10
2009	2Q Total	$3,222,966	2/26/10
Total Paid for FY 10		**$4,358,982**	
2009	1Q Exceptions	$136,338	9/28/10
2009	2Q Exceptions	$715,282	9/28/10
2009	3Q Total	$4,095,425	9/7/10
2009	4Q Total	$13,789,355	10/4/10
2010	1Q Total	$7,190,984	10/20/10
2010	2Q Total	$6,448,166	10/26/10
2010	3Q Total	$12,656,905	3/31/11
Total Paid to Date FY 11		**$45,032,460**	

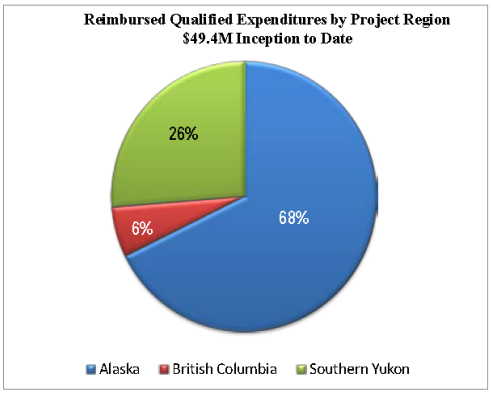
Grand Total Paid to Date	**$49,391,442**

Reimbursement Forecast Summary	
FY 2011 remaining	$57,057,651
FY 2012	$170,000,000
FY 2013	$129,000,000
FY 2014	$94,550,907
Total	**$450,608,558**

Total Inducement	**$500,000,000**

Table B
AGIA Reimbursement Request Summary - By Project Region
As of QE September 30, 2010

Year	Qtr	Month	Project Region	Total Claimed Gross Expenditures	Total Gross Exceptions	Total Approved Gross Qualified Expenditures	Total Qualified Expenditures Available for Reimbursement at 50% & 90%	Less Qualified Reimbursement Held in Reserve	Reimbursed Qualified Expenditures
2010	1 Q			$18,756,500	($3,109,662)	$15,646,838	$7,823,419	($632,435)	$7,190,984
	2 Q			$19,144,678	($4,975,056)	$14,169,622	$7,084,811	($636,645)	$6,448,166
	3 Q	July	Alaska	$5,470,051	($638,723)	$4,831,328	$2,415,664	$0	$2,415,664
			British Columbia	$423,986	($129,271)	$294,714	$147,357	$0	$147,357
			Southern Yukon	$1,727,711	($540,618)	$1,187,093	$593,546	$0	$593,546
		July Total		$7,621,748	($1,308,613)	$6,313,135	$3,156,567	$0	$3,156,567
		August	Alaska	$2,737,081	($15,000)	$2,722,081	$2,002,854	$0	$2,002,854
			British Columbia	$421,379	$0	$421,379	$351,593	$0	$351,593
			Southern Yukon	$2,153,572	($508,687)	$1,644,885	$1,041,650	$0	$1,041,650
		August Total		$5,312,031	($523,687)	$4,788,345	$3,396,098	$0	$3,396,098
		September	Alaska	$5,116,051	($327,499)	$4,788,552	$3,194,283	$0	$3,194,283
			British Columbia	$402,332	($64,041)	$338,291	$278,365	$0	$278,365
			Southern Yukon	$3,879,909	($97,181)	$3,782,728	$2,631,592	$0	$2,631,592
		September Total		$9,398,291	($488,720)	$8,909,571	$6,104,240	$0	$6,104,240
	3 Q Total			$22,332,070	($2,321,020)	$20,011,051	$12,656,905	$0	$12,656,905
2010 Total				**$60,233,248**	**($10,405,738)**	**$49,827,510**	**$27,565,135**	**($1,269,080)**	**$26,296,055**
2009				$54,235,016	($5,681,080)	$48,561,077	$24,278,195	($1,230,180)	$23,055,156
2008				$84,450	($3,989)	$80,460	$40,230	$0	$40,230
Total Since Inception Date				**$114,552,714**	**($16,090,807)**	**$98,469,048**	**$51,883,560**	**($2,499,260)**	**$49,391,442**



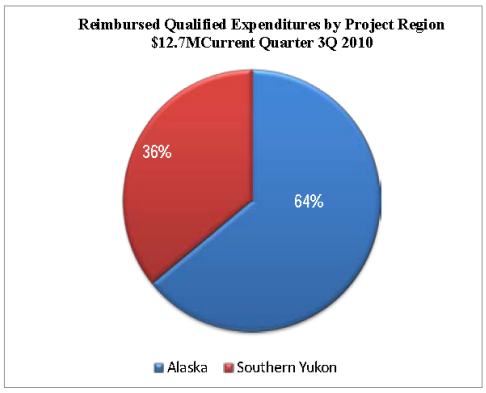
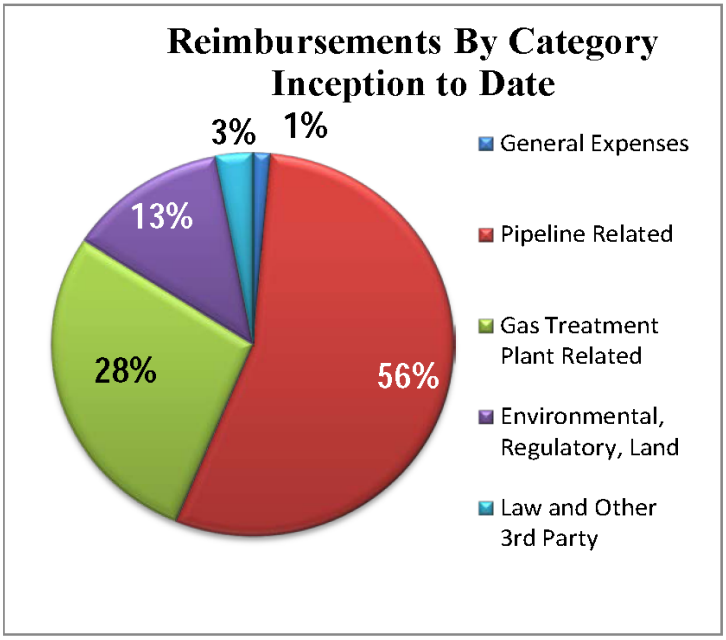


Table C
Reimbursements by CBS Category
As of QE September 30, 2010

CBS Categories	Inception to Date
General Expenses	$695,602
Pipeline Related	$27,090,172
Gas Treatment Plant Related	$13,774,052
Environmental, Regulatory, Land	$6,363,698
Law and Other 3rd Party	$1,467,918
Total	**$49,391,442**



The reimbursements are broadly categorized into five major classifications based on information provided by TC Alaska.

2.4 Annual Audit

An RFP for auditing services by an independent accounting firm was issued in April 2011 and was awarded on May 16, 2011. The RFP is for one year with four, one-year renewal options. The estimated cost of the CY 2010 audit is $150,000 and covers an entire year of activity. The scope of the annual audit is to assess the adequacy of TC Alaska's internal controls and accounting process in relation to the identification and submission of qualified expenditures, to determine if the Licensee was in compliance with applicable statutes and regulations, and to determine if the costs submitted for reimbursement complied with the Act. The goal of the audit is to identify areas of improvement for the department and TC Alaska and to timely implement recommendations and corrections to the reimbursement process.

The successful audit firm will review $90M in gross expenditures to ensure eligibility under the Act and applicable regulations. The Licensee had received $35M in state matching funds as of December 31, 2010. Non qualifying gross expenditures spent by the Licensee are not submitted for reimbursement. The reimbursements to be audited cover expenditure activity from 2Q 2009 through 2Q 2010 and were reimbursed at the 50% rate. As the project has advanced, the transaction volume and dollar values have increased significantly. As a result, the annual audit will require more time and auditors to perform the work.

3. Project Status Report

3.1 Schedule and Timeline

APP's open season offered two pipeline route options. The Alberta option starts on Alaska's North Slope and continues on to Alberta, Canada. The Valdez option starts on Alaska's North Slope and continues on to Valdez, Alaska.

APP is in the process of negotiating the terms and conditions of Precedent Agreements (PAs) with potential shippers. The final routing determination will be made when negotiations are complete and PAs are signed. APP's current work efforts are focused on the Alberta option.

The Development Phase for the project remains unchanged (see timeline below).

APP held the first ever open season for Alaska North Slope natural gas in 2010.

APP has now entered the Definition Sub-Phase which runs from August 2010 through to receipt of major regulatory approvals in 2014.

Key deliverables during the Definition Sub-Phase of the project include:

- Execute PAs with Shippers;
- Assess market demand for additional capacity every 2 years;

- Prepare and file an application for FERC Certificate of Public Convenience and Necessity (CPCN) in October 2012;
- Prepare and file NPA compliance documents; and
- Progress engineering and construction planning.

The project schedule was developed based on the following assumptions:

- Open season is fully subscribed and conditions precedent in PAs are satisfied including any shipper/ producer issues;
- FERC timelines, as mandated under ANGPA 2004, are met;
- Land rights are acquired in a timely manner; and
- Project sanction and funding occurs in 2015;

The project schedule, as shown below, is consistent with the open season filing basis. First gas delivery date is estimated to be 2020 with full gas delivery in 2021. APP reports that these dates are the result of a thorough review of the project staging and logistics, with the sea lift windows for GTP modules and components being the critical component to successful execution. The APP project team continues to investigate opportunities for optimization of these schedules.

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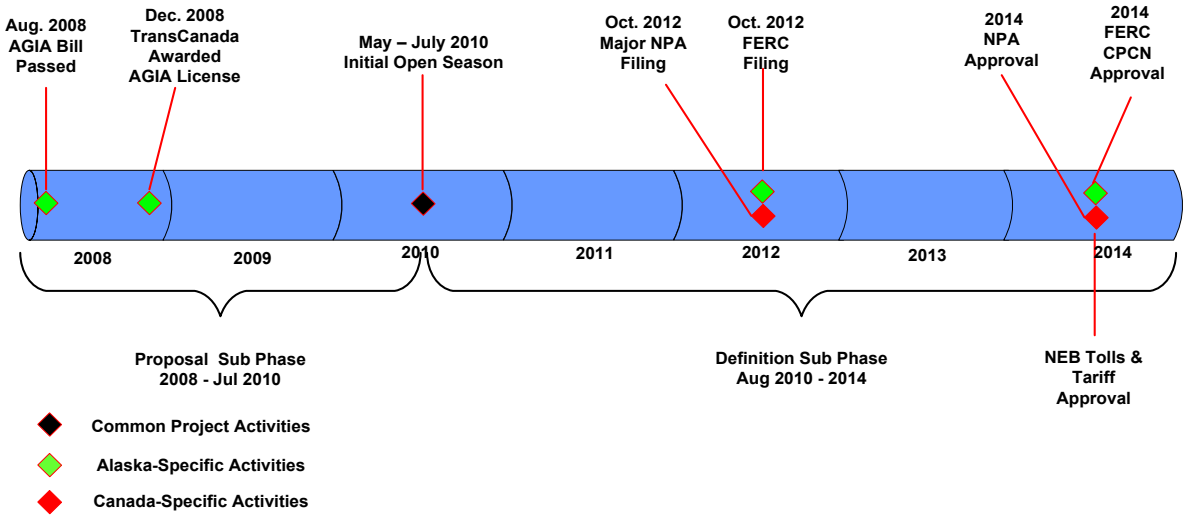
3.2 Project Schedule



3.3 Major Achievements and Milestones

In addition to the APP's defined project timeline, a review of the previous three years since the AGIA legislation passed shows that a number of important milestones and achievements have been met or are about to be reached. These include:

- May 27, 2007: AGIA legislation passes
- November 2007: State receives applications for AGIA license
- December 2008: AGIA license awarded to TransCanada
- June 2009: Alignment of TC Alaska and ExxonMobil
- January 2010: APP submits its open season plan for public comment and review by (FERC)
- March 31, 2010: FERC issues an order approving APP open season plan; approval indicates that the plan for conducting the open season is fair
- April 30, 2010: start of the APP open season – the first-ever open season for Alaska North Slope natural gas
- July 30, 2010: APP open season closes; received multiple bids for significant volumes from major industry players and other parties
- Summer 2010: APP engineering and environmental field programs were carried out in Alaska and Canada to gather data in support of engineering, technology development and permit applications
- August 2010: APP commences negotiations with shippers on conditions of PAs
- November 2010 to March 2011: Workshops and meetings held with federal and state agencies to provide project updates, discuss technical programs/practices, and to clarify information delivery and permit requirements.
- Winter 2010/2011: APP planned and conducted a second season of engineering and environmental field programs in Alaska and Canada to gather data in support of engineering, technology development and permit applications
- February 2011: Project reached 1 million hours of work without a lost time incident
- March 2011: Initiated next round of project information meetings and Open House Community Meetings held in Alaska and Canada as part of the stakeholder engagement process. Meetings will continue until early May 2011.
- April 2011: Preliminary Drafts of Resource Reports #1 (General Project Description) and #10 (Alternatives) submitted to FERC

State Activities

3.4.1 Project Status

On July 30, 2010 APP completed the first open season to commercialize North Slope natural gas, announcing that it has "received multiple bids for significant volumes from major industry players and other parties." The Project is engaged in negotiations to finalize commercial terms for the proposed project and execute precedent agreements. These negotiations are confidential between private parties.

APP's open season documents described two route options. The final routing determination will be made when negotiations are complete and precedent agreements are signed. Once a PA is executed, key terms (shipper, volume, and destination) will be made public and filed with the FERC.

The provisions of the Act and the license the State entered into with TC Alaska require the Licensee to advance the project through regulatory filing with FERC. APP is on schedule to submit an application to FERC in October 2012 to seek a Certificate of Public Convenience and Necessity (CPCN). This certificate is a key regulatory approval for this project – one of two mandatory success legs for the project to be sanctioned for construction. The other success leg would be for the project and potential shippers to

execute precedent agreements that lead to Firm Transportation Service Agreements necessary to support project financing.

Over the previous six months state employees with the Coordinator's Office were primarily involved in three functions: project monitoring, meeting and coordinating with state and federal agencies that will be involved with the permitting and regulatory phase of this project, and participation in the community open house meetings in advance of the October 2012 filing date.

3.4.2 Project Monitoring

The ACO is responsible for establishing a forward looking view of project issues and to evaluate progress as the plan advances through the definition phase and the regulatory process. This is accomplished by meeting with key project management and staff on a regular basis and discussing their work plans on various aspects of the project as well as their document filings with regulatory agencies. Summaries of these meetings are recorded in the Monthly Monitoring Reports and included in Appendix A of this document.

3.4.3 Agency Coordination

Since October representatives or the Coordinator's office have participated in a number of interagency workshops as part of the current phase of this project. These workshops include:

<u>OFC/PHMSA November 2010 Interagency Workshop:</u> The Project participated in a workshop chaired by the Office of the Federal Coordinator (OFC) and US Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). The focus of this interagency meeting was to explain PHMSA's role in the assessment of the project and for PHMSA to identify some of the project safety issues that they consider to be of importance. The Project and other pipeline proponents also made presentations to this interagency meeting.

<u>FERC December 2010 Interagency Workshop:</u> FERC's December Routing Workshop in Anchorage included 70-90 participants from approximately 15-20 federal and state agencies and 19 members of APP's team. The APP provided a high level description of the project scope and a briefing of their construction plans. Team members also provided a review of the pipeline route in Alaska. The Project had arranged for a GPS system to be available in the meeting that allowed them to focus on any area of the pipeline route that was of interest to the workshop attendees. It is understood this feature of the presentation was particularly appreciated by the attendees.

<u>FERC March 2011 Interagency Workshop:</u> The Project participated in three FERC interagency workshops on March 1-3. Over 80 federal and state agency staff and 20 people from APP attended these meetings. The topics covered, included: pipeline construction overview; (2) pipeline right-of-way preparation and maintenance; and (3) watercourse crossings.

3.4.4 Open House, Scoping Meetings and FERC

Prior to filing for a CPCN in October 2012, as part of the pre-filing process, APP is sponsoring open house meetings in communities located near the proposed pipeline route. These meetings are open to

the public and provide an opportunity for the Project to update community members of the current status of the project and to address questions and concerns raised at these meetings. FERC staff (and/or its EIS contractor Argonne National Laboratories) are participating in these meetings to share information regarding its role in the regulatory process. FERC staff also use these meetings as an opportunity to gather information to help them prepare for scoping meetings (discussed more below).

APP staff greeting public attendees at Valdez open house community meeting on April 20, 2011

From March through June 2, 2011 APP held community open house meetings in dozens of communities in Alaska and Canada. These communities are identified in the APP's project update section and on its website at:

http://www.thealaskapipelineproject.com/community_meetings.

At the time of the filing of this report APP held all of its Alaska open house meetings. Representatives of the State of Alaska have attended most of these meetings to participate at these presentations, provide information and answer questions from the community. Over the course of these meetings there have been numerous questions from the public. Most questions or concerns raised fell into one of five categories, including:

1. Access to energy
2. Environmental effects or impacts
3. Community impacts including subsistence
4. Land access and acquisition, and
5. Community opportunities (i.e., workforce development and community investment)

For many of these meetings a representative from the Alaska Department of Labor and Workforce Development has been present to provide information about apprenticeship programs and other training and educational opportunities available through state jobs programs. More information on the Department of Labor's efforts is included later in the report.

Department of Labor & Workforce Development, Pipeline Training Administrator Gerry Andrews (L) and APP Cultural Liaison Alice Crow (3rd from Left) answer questions at Dot Lake open house community meeting on April 14, 2011.

FERC is the lead federal agency for purposes of administering the requirements of the National Environmental Policy Act (NEPA). Through the NEPA process FERC establishes the procedural requirements for all federal government agencies to prepare the project EIS.

APP submitted its preliminary draft Resource Reports covering project description and alternatives on April 29, 2011. These reports are available on the APP website, at:

http://www.thealaskapipelineproject.com/document_library.

FERC is anticipated to issue a notice of intent to prepare an EIS this summer. In late 2011 or early 2012 FERC is anticipated to begin holding its NEPA scoping meetings.

APP Community Relations Manager Bryan Trimm presenting at Anaktuvik Pass open house community meeting on March 17, 2011

FERC representatives Ellen St. Onge and Deputy Director Mike Boyle participating at APP's open house community meeting in Kaktovik, March 14, 2011

Scoping meetings are sponsored by FERC and are open to the public. At the scoping meetings FERC will take public comments, describe and answer questions about the environmental review process. APP representatives plan to attend these meetings and may be afforded an opportunity to provide additional information to the public attendees. Additional information regarding open house and scoping meetings is available at FERC's website at:

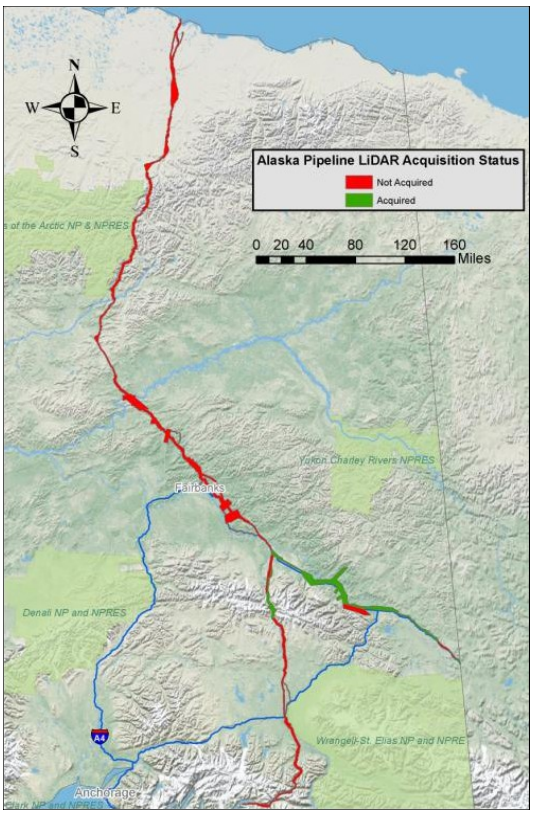
http://www.ferc.gov/industries/gas/indus-act/pre-filing/faqs.asp

3.4.5 The Gas Pipeline Corridor Geologic Project and LiDAR Aerial Survey

In preparation for construction of a natural gas pipeline the Department of Natural Resources, Division of Geological & Geophysical Surveys (DGGS) continued its work evaluating geology, geohazards and material resources between Delta Junction and the Canadian border along a 12-mile wide corridor following the Alaska Highway. DGGS has published numerous preliminary maps and reports on this project covering surficial geology, permafrost, bedrock geology and potentially active faults. During 2011 final fieldwork will be conducted to resolve remaining geologic issues. Final compilation maps and reports are planned to be completed by winter 2012.

In August 2010 DGGS initiated a major aerial survey of proposed routes for a large capacity Alaska natural gas pipeline. DGGS is conducting this survey using light detection and ranging (LiDAR) and advanced navigational technologies to obtain high resolution digital elevation models of the ground, vegetation, and other above-ground features to improve our understanding of the route for an Alaska gas pipeline or other existing or proposed pipelines from the North Slope to the Canadian border or Valdez. For the DGGS geologic work, the LiDAR will help identify active faults, landslides, and other areas of ground instability.

During September and October 2010 DGGS, through the efforts of contractor Watershed Sciences, Inc., collected data for 344,959 acres – 22 percent of the total survey area. Data was collected between Delta Junction and the Canadian border, as well as between Delta Junction and Paxson. The remaining area will be surveyed in the spring and summer of 2011. Following quality control and technical review, the data will start becoming available to the public via the DGGS website (http://www.dggs.alaska.gov) in mid-2011. Project reports published to date are also available on the DGGS website.



The LiDAR survey cost is $1.95 million for a total area of approximately 2500 square miles. The state is funding $1.65 million of this project and the remaining $300,000 coming from the Office of the Federal Coordinator (OFC). More information on the Corridor Project and LiDAR acquisition is available at pp 58-59 of the DGGS 2010 Annual Report, located online at:

http://www.dggs.alaska.gov/webpubs/dggs/ar/text/ar2010.PDF

3.5 APP Activities

Major achievements reported by the APP since the October 2010 legislative report are summarized below.

3.5.1 Project Management

Work on the project continues to progress according to plan. During the month of February the Project reached a significant safety milestone by recording its one millionth hour of work without a lost time incident.

Following completion of the first open season in the history of Alaska North Slope natural gas development, the APP project team has been working closely with potential shippers to reach agreement on terms of PAs to ship natural gas on the pipeline. The current level of work activity is consistent with the status of commercial progress and is sufficient to support the 2012 regulatory filings. Work activities and related expenditures are expected to ramp up when PAs are signed with potential shippers.

The APP project team continues to progress its work plan to submit major regulatory filings in October 2012. One of the key steps towards this objective was completed with the issuing of preliminary drafts of Resource Reports #1 (General Project Description) and #10 (Alternatives) to FERC on April 29, 2011.

Engineering work continued to progress on the pipeline and the gas treatment plant with design and logistics optimization work, implementation of winter 2010/2011 field programs, and the planning for summer 2011 field programs. The engineering technology program has advanced through to full scale testing of pipe and materials. APP has conducted several workshops with federal and state agencies in the US and federal, territorial and provincial regulatory agencies in Canada, to review permitting and other regulatory filing requirements and information delivery plans. Environment, regulatory and land teams have planned and carried out field studies and provided permitting support for the engineering field programs. They have also initiated the next round of Open House Community Meetings in Alaska and Canada.

The APP project team continues to meet with monitors from the Coordinator's office on a monthly basis and biweekly with the State of Alaska Gasline Team to provide regular status updates.

3.5.2 Commercial

The APP open season closed on July 30, 2010 resulting in multiple bids for significant volumes from major industry players and other parties. The Project has been, and continues to be, actively engaged with potential shippers to resolve outstanding terms and conditions of PAs for gas transportation.

3.5.3 Gas Treatment Plant (GTP)

Work is continuing on the development and optimization of the GTP conceptual design, execution planning and preparation of input to FERC Resource Reports #1 (General Project Description), #10 (Alternatives) and #9 (Air and Noise Quality).

The Project team has completed site visits to several Asian and US (Alaska and Gulf Coast) fabrication yards to evaluate capabilities and capacities to construct GTP modules. The team also reviewed module fabrication techniques and tested the interest level of the fabricators to participate in future design optimization studies.

An air monitoring station is being assembled for installation on the North Slope. Site selection for the monitoring station has been reviewed with PBU operators. Approval for the monitoring site location has been received from the Alaska Department of Environmental Conservation (ADEC). A monitoring plan is under development for ADEC approval prior to collection of data.

3.5.4 Pipeline

Pipeline program work efforts since October 2010 have been focused in five key areas:

- development and refinement of the pipeline and facilities design and execution concepts
- planning and execution of the winter 2010/2011 field program
- continued progression of the technology development program
- engagement with regulatory agencies to define requirements
- engineering input to support preparation of Resource Reports #1 and #10 and NPA filings

Field crews for the winter 2010/2011 field program mobilized in late February. Field work was carried out during March and April 2011. Key components of the program included:

- geotechnical drilling program in Canada and Alaska
- geotechnical drilling of the Koidern River crossing in Yukon Territory to help define river bank and approach slope ground conditions
- geophysical studies at the Koidern River to establish winter water flows
- ice thickness profiling on Kluane Lake

Soils samples from the winter geotechnical drilling programs will be tested to determine soil properties for design purposes.

Planning and permitting is currently underway for the 2011 summer field program. Results of the summer 2010 field programs have now been documented and will be used to refine the pipeline routing, to advance the design and to support planning for future field programs.

Review of the pipeline and facilities design and execution plan identified two cost and risk refinement opportunities that have been included in the current work program. One opportunity is consideration of a longer execution schedule for the mainline (3 years versus 2 years). This opportunity is still being evaluated. The second opportunity was a study to look at alternatives to propane chilling to cool the gas in discontinuous permafrost. As a result of this study, the Project will modify the facilities design basis to include gas-to-gas heat exchangers and aerial coolers instead of propane chillers upstream of Kluane Lake. This change has been included in draft Resource Report #1. Gas will still be chilled with propane chillers at the GTP. The new design results in reduced footprint, reduced emissions and reduced capital and operating costs.

A study is currently underway to review the relative merits of using 60 foot pipe joints or 80 foot double-joints. Preliminary results indicate that there are marginal differences depending on site specific questions. Construction plans continue to be based on 80 foot double-joints in Alaska and 60 foot joints in Canada.

The technology program, which includes materials engineering and strain based design (SBD), is currently focused on demonstrating the capability of materials to meet supplementary design requirements to support SBD in preparation for regulatory filings. Analysis of test data from small scale testing to confirm properties of line pipe, weld material and other components has been completed. Results indicate that the capability exists to produce materials with the properties required to support the requirements of the project including SBD.

Full scale testing is underway on samples of 42 inch pipe with properties similar to those that would be used for APP. A site has been located to set up facilities for full scale testing of 48 inch pipe and testing is expected to begin in September.

Over the past several months, the pipeline team has held several meetings, technical forums and workshops with FERC, PHMSA, OFC, NPA and other regulatory agencies. The purpose of these sessions was to provide project status updates, to review technical plans with the agencies, enhance agencies understanding and awareness of APP's design approach and programs, and to help clarify agency information delivery and permitting requirements.

3.5.5 Environment, Regulatory and Land (ERL)

The APP continues to meet with FERC, OFC, NPA and other federal, state and provincial/territorial agencies to progress regulatory planning in support of FERC and major NPA filings in October 2012 and the processing of other project permits. Several meetings were held in Alaska between December 2010 and March 2011 to review information delivery and permitting schedules with agencies. The ERL teams

also supported and participated in several agency technical forums that were held during this same time frame to update and inform the agencies on technology programs and technical practices. Additional information regarding the scope of these forums in provided in the Pipeline update above.

The ERL Alaska team has focused on preparation, coordination and review of Preliminary Drafts of FERC Resource Reports #1 (General Project Description) and #10 (Alternatives).

The Project team has also been preparing for community meetings in Alaska and initiated work planning, permitting, securing land access and data collection associated with the Winter 2010/2011 and Spring/Summer 2011 field programs in Alaska. The field data collection program is focused primarily on winter fisheries studies and spring/summer engineering, environmental and cultural resources field programs. Socioeconomic assessment studies have been initiated and planning for subsistence, traditional knowledge and health studies is underway.

The Project also executed an agreement with Argonne National Laboratory which will assist FERC staff in the development of the Environmental Impact Statement (EIS) for the Project.

The ERL Canada team continues to meet with NPA staff monthly to review Canadian regulatory requirements and filing schedules. They continue to update documentation of the issues that will need to be considered in the mitigation plans and programs required for filings. The information will also be used to solicit feedback from the NPA and other agencies, stakeholders, First Nations and interested parties.

The ERL Canada team initiated planning for community meetings along the pipeline route in Yukon and British Columbia that are being held from March through May. Additionally, the team has been securing access and permits for the winter field programs and continues planning for summer 2011 field programs with a focus on ground access and helicopter landing sites. The winter environmental field program in Canada was primarily focused on fisheries studies in Yukon and British Columbia and providing permits, contacts with the First Nations and training of local participants to support the engineering geotechnical field programs in Yukon.

Safety training of field crews in Alaska and Canada was completed prior to crews being deployed to the field.

APP Field Team pre-job Safety meeting—image courtesy of APP

Aboriginal participation represents an important aspect of the field programs in Canada and will be a main component of

all APP field work. Measures to involve local residents or Aboriginals in the Canadian field programs enable the Project to meet some of the existing expectations of the NPA Socio-Economic and Environmental Terms and Conditions. In line with these expectations, the Project held an orientation and field training program with several First Nations in January in preparation for the winter field programs.

3.5.6 Stakeholder Engagement

The Project continues to actively engage with external stakeholders including Alaska Natives and First Nations and other Canadian aboriginal peoples to share information about the project and to understand issues related to project development. Negotiations continue to move forward with Yukon and British Columbia First Nations on Cooperation Agreements and Participation Agreements. Confidentiality agreements are in place with 3 First Nations. Cooperation Agreements have been signed with 2 First Nations. A Participation Agreement has been signed with 1 First Nation and discussions continue to progress with several other First Nations.

From March through April the Project had planned to hold several Community Open House meetings in Alaska and Canada. Additional information regarding the locations of the Community Open House meetings is shown in the following tables. The purpose of these meetings is to continue building long-term relationships with communities along the proposed pipeline corridor and to provide information regarding various aspects of the project, including socio-economic impacts and near-term job opportunities, to communities, residents and other interested parties. Similar meetings will be held throughout the course of the project.

(L) APP Cultural Specialist Alice Crow discussed draft map of proposed pipeline route at Tanacross open house community meeting (April 12, 2011); (R) APP Team Member Lisa Gray discusses project at Tok open house community meeting (April 11, 2011).

APP Alaska Open House Community Meetings	
Location	**Date**
Nenana	March 10
Kaktovik	March 14
Nuiqsut	March 15
Barrow	March 16
Anaktuvuk Pass	March 17
Stevens Village	March 24
Allakaket/Alatna	March 29
Evansville/Bettles	March 30
Wiseman/Coldfoot	March 31
Tok	April 11
Tanacross	April 12
Northway	April 13
Dot Lake	April 14
Chistochina	April 20
Tazlina/Glenallen	April 20
Valdez	April 20
Mentasta Lake	April 22
Fairbanks	April 26
Delta Junction	April 28
Tetlin	April 29
Minto	June 2
Seward	May 10
Haines	May 11
Skagway	May 13

In addition to the above meetings, APP has held eight meetings in Alaska with native village corporations, civic government representatives and tribal councils.

APP Canada Open House Community Meetings	
Location	**Date**
Beaver Creek, YT	March 8
Haines Junction, YT (2 meetings)	March 10, 11
Teslin, YT	March 15
Burwash Landing, YT	March 17
Watson Lake, BC	March 23
Dease River, BC	Date to be confirmed
Lower Post, BC	Date to be confirmed
Kwadacha	Date to be confirmed
Doig River, BC	April 5
Halfway River	April 6
Blueberry River, BC	April 7
Fort St. John, BC	April 20
Prophet River, BC	April 12
Fort Nelson, BC (2 meetings)	April 13, 14
West Moberly, BC	April 19
Saulteau. BC	Date to be confirmed
Chetwynd, BC	April 27
Dawson Creek (2 meetings)	April 18, 28
Whitehorse, YT (up to 4 meetings)	May 11 (Other dates to be confirmed)

A total of 18 First Nations have been included in the Canadian meetings to discuss project updates specific to their traditional lands.

3.5.7 Government and Public Affairs

The APP continues to be active in local Alaska and Canadian communities and has provided a number of project update presentations to business and community associations throughout the state as well as communicated status through in-state media outlets.

In order to enhance the public's understanding and awareness of the project, the APP established a project-specific website in early 2010 which includes a diversity of information including detailed open sea-

son filings, fact sheets and other project status updates and documentation. The website was extensively updated in March 2011 and will continue to be updated as the project progresses.
The website can be accessed through the following link:

http://www.TheAlaskaPipelineProject.com/.

3.5.8 Project Cost Estimate

There have been no changes to the project cost estimate that was developed for open season, however the Project team continues to investigate cost optimization opportunities through its ongoing work activities.

As previously reported in the October 2010 report to the legislature, on a 2009 US $ basis, the cost estimate range for the Alberta Case is $32 to $41 billion and $20 to $26 billion for the Valdez Case. These estimates include the Gas Treatment Plant on the North Slope and the Point Thomson pipeline (which is outside of the AGIA scope for reimbursement).

4. Alaska Workforce and Business Participation

4.1 Alaska Hire and Contracting

The Project continues to use specific evaluation criteria and weightings to ensure the best selection of service providers is made when soliciting proposals/quotations for third party work. Along with safety, quality, cost and delivery schedule, other factors that are considered in the selection of contractors include the contractor's:

- Physical presence in Alaska (offices and/or work locations);
- Previous work completed in Alaska and in arctic environments;
- Work with local communities; and
- Hiring practices proposed for the work, incorporating plans for both Alaska Native and nonnative Alaskans.

The use of these factors to select contractors helps APP meet the Alaska business and local hire requirements of the AGIA license.

Alaskan companies and Alaskan workers have been extensively engaged in the recent environmental and engineering field programs. As of March 2011, approximately 475 Alaskans have been employed on the project and the following Alaska-based service providers have performed project work for APP.

Alaska-based contractors providing services to APP

AECOM (ENSR)	HDR, Inc.
Aero-Metric	Immersive Media
AHC (Arctic Hydrologic Consultants)	Jade North
Air Logistics (Bristow Helicopters)	ISER (Institute of Social and Economic Research)
ASRC (ASRC Engineering Services)	Lounsbury & Associates
Baseline GeoConsulting	Michael Baker Jr. Inc.
Bureau of Land Management	Mullikin
Carns General Contractors	NANA Management Services
Central Environmental	Nana WorleyParson
Clarus Technologies LLC	Nanuq Inc.
Discovery Drilling	NHG Alaska LLC
Doyon (Doyon Limited/Doyon Universal Services, LLC)	Northern Economics
	Northern Engineering and Scientific
Dryden & Larue Inc.	Oasis Environmental Inc
Dwayne Miller & Associates	Paragon Partners
ERA Helicopters	Peach Investments LLC
ERM (Environmental Resources Management)	Red Bear
GCI Telecommunications	R&M Consultants
GeoNorth Inc.	Safety Resourcing
Golder Associates, Inc (Alaska Office)	SRK Consulting
Guardian Security	Tanana Chiefs

As part of its ongoing support of Alaska-based workforce development, the Project participated in the Alaska Gasline Strategic Training Plan Steering Committee meeting in February and will maintain an ongoing support role.

4.2 Workforce Development

The Alaska Department of Labor and Workforce Development (DOLWD) continues the implementation of the Alaska Gasline Strategic Training Plan, now referred to as the Alaska Oil and Gas Training Plan.

The plan's overall purpose is to align and enhance Alaska's workforce development and training system with Alaska's educational system, in preparation for Alaska's natural gas pipeline and other natural resource development projects, and to remedy an aging workforce. Through the plan Alaskans are afforded the opportunity to learn and train in a connected system by acquiring skills necessary for the industry's employers.

Through strategic investments in connected and accredited programs that offer world-class training for Alaskans, the plan fosters collaboration and innovation among Alaska's government agencies, businesses and training providers. The training plan is regularly monitored by a public/private advisory committee and guides DOLWD and the Alaska Workforce Investment Board (AWIB) in workforce policy development and allocation of training funds.

The plan identifies four broad strategies to prepare Alaskans for 113 occupations needed for delivering a prepared Alaska workforce for careers in construction, operations, management and other occupations related to natural resource development, including a gasline.

1. Increase awareness of and access to career opportunities in natural resource development.
2. Develop a comprehensive, integrated career and technical education system that aligns training institutions and coordinates program delivery.
3. Increase opportunities for registered apprenticeship in skilled occupations and expand other structured training opportunities.
4. Increase opportunities for development of appropriate training programs for operations, technical, and management workers.

State and federal funding has been appropriated to implement these strategies. Following are summaries of key activities within each strategy during state fiscal years 2010 (FY10) and 2011 (FY11).

Strategy 1: Increase Awareness of and Access to Careers

1. In FY10, the Alaska Construction Academy trained 4,337 youth and 503 adults in a variety of gasline occupations and employed 470 individuals with expansion into Bethel, Kodiak and Nome. Similar results are expected for FY 11 and FY 12.
2. FY10 through FY11 summer program, the University of Alaska- Statewide provided outreach and career awareness activities to 1,119 youth through five venues: Alaska Summer Research Academy; University of Alaska Fairbanks Sports/Math Camp "SMART ACADEMY" Sports Mathematics Academics Reading and Team Play; College of Engineering and Mines K-12 Engineering Outreach; Pre-engineering Career Academy at University of Alaska Anchorage and Fairbanks; and a Summer Mine Camp at Donlin Mine.
3. The Alaska Department of Transportation and Public Facilities (DOTPF) Civil Rights Office partnered with DOLWD to provided career and technical education opportunities for 700 students at the fourth annual Construction Career Day in April. Students explored interactive exhibits, trade industry displays and heavy equipment demonstrations at the Alaska State Fairgrounds in Palmer. Hands-on activities included welding, surveying, electrical wiring, spike driving and drilling. For the first time, a second event was held at the Soldotna Sports Arena, with more than 400 students from across the Kenai Peninsula attending on April 27, 2011.
4. In FY10 the Alaska Youth First Program delivered awareness activities through career guides to 21,161 Alaska youth. The youth first program overall provided awareness and employability skills training to more than 36,000 youth. In FY11 the program is refining performance criteria and expects to reach a similar number of youth ages 16-24 by June 30, 2011.
5. In FY 11 the Teacher Industry Externships (TIE) program continues to align with the Natural Resources Training Plan by increasing the awareness of and access to career opportunities in natural resource development. In FY 2010, 17 teacher externships in gas pipeline-related occupations were sponsored by DOLWD and the Alaska Process Industry Careers Consortium (APICC). When they return to the classroom, these teachers provide their students with first-hand information about the types of careers and skills needed in the industry.
6. Northwestern Alaska Career and Technical Center (NACTEC) Goal Oriented Learning at a Distance (GOLD), program of instruction for high school students from rural Alaska enrolled 94 youth partici-

pants in FY10. As most students from Northwest Alaska live in remote villages, the traditional options for education and training are to either fly students into NACTEC, a centralized site of instruction, or fly instructors to the villages. The NACTEC GOLD program provides a third alternative by allowing students to access online distance delivery education via synchronous (live) and asynchronous (recorded or other "non-live" formats) instruction. While participating, students receive entry level, pre-employment academic activities focused on improving fundamental math and reading comprehension. The students also experienced related career exploration activities including introduction to welding, engine repair, driver education, emergency medical technician, food preparation, and carpentry. During FY11 NACTEC is projected to enroll 95 youth participants from rural Alaska. The program will continue in FY 12.

7. DOLWD's - Employment Security Division (ESD) continue to refine ALEXsys, Alaska's Online Job Bank, which allow job seekers to enter their credentials as part of their on-line resumes. This feature allows better matching of job seekers' skills and experiences to employers' job requirements. The credentialing feature also allows the Department to track individuals by specific credentials, providing the ability to determine job seeker employment and training needs. Credentials include professional licenses, certifications, endorsements, diplomas, and the ACT Work Keys®-based National Career Ready Certificate known as Alaska Career Ready.
8. Another enhancement to ALEXsys is variable reporting, which enables ESD staff to create ad hoc reports to better manage resources. For example, this function allows DOLWD to contact rural Alaska job seekers with specific skills in priority industries to advise them of training opportunities. This outreach resulted in seven Alaskans attending diesel mechanic training and 15 Alaskans attending underground mining training. Both are gasline-related occupations.
9. AVTEC-Alaska's Institute of Technology has significantly increased efforts to reach Alaska high school students through more than 300 visits to schools and career fairs across Alaska in the last three years. As a result AVTEC's average student age is now 25 and in the last two years AVTEC has trained more than 540 youth ages 17-21 in gasline-related occupations. With a 92% job placement rate, almost 500 Alaskans age 17–21 have entered gasline-related occupations in the last three years. AVTEC currently offers pre-apprenticeship in several occupations identified in the gasline training plan, and is offering related instruction for electrical and plumbing apprentices. More recently, AVTEC completed a newly registered apprenticeship program for diesel technician.
10. DOLWD's Research and Analysis Section (R&A) created an electronic training program clearinghouse. This online program assists Alaskans in making effective career decisions and is available on the Department's website. The application provides easy access to Alaska training provider and program information and identifies training programs specific to occupations.
11. Through the development and dissemination of regional labor market information, R&A significantly increased stakeholder understanding of Alaska's regional economies. The Alaska Local and Regional Information (ALARI) web application provides jobseekers and policymakers with data on which to base career and policy decisions.
12. DOLWD's Office of Apprenticeship (OA) continues to collaborate with the national Association of Career and Technical Educators (ACTE) on several projects. The 2010 Alaska Apprenticeship Conference was co-presented in Anchorage to allow educators to attend both the ACTE Region V conference and the apprenticeship conference. The OA has presented the advantages of registered apprenticeship to many ACTE's Professional Development Conference sectionals to highlight apprenticeship as a next step after high school graduation.

13. The OA and the DOTPF-Civil Rights Office continue to promote apprenticeship as a means for non-traditional populations to connect to the industry through apprenticeship. This outreach targets both youth and adults through www.EarnandLearnAK.Org and is in its second year.

Strategy 2: Aligned Career and Technical Education System

1. In FY 10, more than 960 Alaska youth participated in summer work experience with a focus on developing basic work skills. Pre- and post-tests were applied via KeyTrain's Career Ready 101, which includes an on-line assessment of work skills. Almost 200 of the youth were hired in permanent positions. Funding for this activity was one-time in nature, provided under the American Recovery and Reinvestment Act from the U.S. Department of Labor, Employment and Training Administration. This funding allowed DOLWD to extend this training to WIA Youth grantees. Many of these youth have applied to university and/or registered apprenticeship programs.
2. Nineteen Career Guides, funded through the Alaska Youth First Program and located in schools and communities around Alaska, are providing career and job training information to students both during the school day and during extracurricular school activities.
3. AVTEC is continuing to assist Regional Training Centers (RTCs) in establishing outreach, recruitment, enrollment standards, and basic skills assessments to increase the number of rural residents enrolling in gasline-construction-related technical training programs and apprenticeships.
4. AVTEC and the OA developed a seamlessly connected registered apprenticeship training model that allows employers to offer employment and required training in rural communities statewide.
5. DOLWD, the University of Alaska and the Alaska Department of Education and Early Development jointly published the Alaska Career and Technical Education Plan (CTE). The CTE plan was approved by the Alaska Workforce Investment Board (AWIB) in May 2010, the State Board of Education in June 2010, and the University of Alaska Board of Regents in September 2010. The CTE plan supports a connected system of statewide resources that focuses on both the education and training needs of students, and the workforce needs in the state. CTE enhances students' education by providing rigor and relevance to academic and career preparation. This connected education model includes Career Pathways, Program of Study, Tech Prep Credit, and Registered Apprenticeship
6. The Alaska Workforce Investment Board (AWIB) upgraded and updated its website, which is a vehicle used to provide public outreach with information about AWIB, Alaska natural resources workforce development plan, registered apprenticeship, and career and technical education. AWIB board and staff are working with stakeholders across the state to identify education and workforce development needs and strategies. AWIB recently published the first RTC statewide Program and Facility Inventory, a detailed list by RTC of the facilities available and the courses, programs or sessions offered. This inventory will be used to develop strategies through the new CTE Plan as it continues to evolve inviting coordinated and focused action from all stakeholders.
7. The Alaska Workforce Investment Board (AWIB) publishes a bimonthly newsletter highlighting its activities, including gasline training plan, registered apprenticeship, and career and technical education.
8. DOLWD's Division of Business Partnerships has updated its website to provide visitors with information on workforce investment strategies for employers and training providers, as well as highlights of the division's current efforts to prepare Alaskans to work in Alaska's high-wage, high-demand occupations. The addition of the Division's new grant management system, EGrAMS provides automation and transparency to the public with regard to grant opportunities and workforce partnerships.

9. Through a partnership with DOLWD, industry and local school districts, the Alaska Construction Academy's nine statewide locations are providing career awareness information and training to more than 4,500 Alaskans in occupations related to construction of a gas pipeline with many opportunities linked through registered apprenticeship.
10. In efforts to revitalize Career and Technical Student Organizations (CTSOs) DOLWD funded a grant to train teachers and youth in leadership and employability skills, and career pathways. In FY11, Future Teachers of America was recognized as a "new to Alaska" CTSO.
11. The OA continues to promote registered apprenticeship as a workforce development strategy, connecting secondary school students to local employment through school-to-apprenticeship. Through this program students earn university credits via Alaska Tech Prep and are on track for an associate degree or higher. Many of the 113 occupations needed for the gasline have been developed into Programs of Study of a recognized career pathway. This systemic approach to coordinating Alaska's educational-workforce development system provides for all Alaskans to earn a living, work on this project while being on track for a university degree. This strategy also promotes gasline occupations to employers through wage incentives and apprenticeship support through individual training accounts making a pathway from school to work.

Strategy 3: Expand Registered Apprenticeship and Structured Training

1. Through an active partnership with the U.S. Department of Labor, Employment and Training Administration's Office of Apprenticeship, the University of Alaska's Mining and Petroleum Training Service (MAPTS), Alaska's mining industry, and the Alaska DOLWD-OA, a first-of-its-kind apprenticeship program for geophysical core drilling was established, setting the standard not only for the state, but also for the nation. The geophysical core driller training was conducted in Kotzebue and Bethel with 37 graduates becoming first-year apprentices. This program is helping train rural Alaskans for high paying jobs in their regions.
2. In FY10, 11 entry level underground miners graduated from a training program held at UAS and the AJ Mine in Juneau. The new program is a collaborative effort of DOWLD, MAPTS, and the mining industry. By partnering with industry, Alaska is creating a premier workforce development model that will meet employers' needs with apprenticeship to follow. A second cohort of entry level miners completed training in the fall of 2010.
3. In FY 10 and in FY11, Alaska Works Partnership (AWP) conducted Health, Safety and Environmental (HSE) courses at the Fairbanks Pipeline Training Center (FPTC) to meet the industry's need to certify and upgrade workers. The HSE courses provided training and certification for oil-, gas- and construction-related jobs with 448 Alaskans, earning industry certifications. This training leads to employment or ensure retention of current craft workers. Participants come from many different employers, but in general those that have bargaining agreements with construction and pipeline construction trade unions and/or members of the North Slope Contractors Association, and contractors providing oil/gas field support services.
4. The state's designated One-Stop Operator is the DOLWD's Employment Security Division, which has 10 federally trained registered apprenticeship specialists engaging employers on a consistent basis and working together with career support and training service case managers on wage incentives, Individual Training Accounts (ITAs), and supportive services. ESD also helps staff the Alaska Office of Apprenticeship with a Business Connection professional who assists apprenticeship specialists and job center staff to connect with prospective employers that may be interested in starting an apprenticeship or on-the-job training program.

5. Through third quarter FY11 the Alaska Pipeline Worker Training Program provided training to more than 800 Alaskans on safe and proper pipeline assembly techniques. Of those individuals more than 82 percent were employed six months after exiting the program.
6. Through its Alaska Job Center Network, DOLWD's Employment Security Division served more than 200 individuals interested in pipeline-related occupations and registered apprenticeships. These individuals received WorkKeys assessments that resulted in National Career Readiness Certificates. In addition to new apprentices, 12 new apprenticeship opportunities were developed with union and non-union employers with incentives from the Alaska Pipeline Worker Training Project.
7. Prince William Sound Community College developed a millwright curriculum and enrolled five registered millwright apprentices in FY2010. In 2011, Prince William Sound Community College began the second phase of its millwright program by establishing a Millwright Associate Degree and offers related instruction for registered apprenticeship programs. In addition, the college has increased its number of registered apprenticeships to 12.
8. The Division of Business Partnerships, in conjunction with the U.S. DOL Office of Apprenticeship, is working with Arctic Resource Group, LLC to develop seven new registered apprenticeships in the Bristol Bay and Interior Regions in the occupation of fiber optic technician, which will enable rural residents to provide office and field support to the gasline project.
9. Recognizing industry's need for environmental technicians, DOLWD implemented a new apprenticeable occupation during FY10. U.S. DOL Office of Apprenticeship, several stakeholder/employers, and the Alaska Workforce Investment Board (AWIB) prepared the occupational analysis in order to register this new occupation. DOLWD's Business Partnerships has awarded a grant to the Alaska Environmental Forum to complete curriculum development, recruit 20 apprentices, establish registered apprenticeship sponsors and increase the employers using the new registered apprenticeship.
10. DOWLD assisted the Teamsters and the Alaska Trucking Association in developing new apprenticeships for diesel technicians and line haul drivers. Eight participants were enrolled in FY10.
11. R&A continued to assess the effectiveness of the apprenticeship training model through the multi-year analysis of apprenticeship program data, through a one-of-a-kind partnership with the U.S. DOL.

Strategy 4: Increase Training Opportunities by Individual Grants

1. The University of Alaska has expanded its engineering program to double the number of engineering graduates.
2. The State Training and Employment Program (STEP) provided more than $3.5 million in training support for a variety of gasline occupations to 1,566 adults.
3. In FY 11 the Galena City School District expanded its training of rural aircraft dispatchers from five in FY10 to seven. The district continues to offer this training through a grant from DOLWD. It should also be noted that 70 percent of the class was rural Alaska women. Here they are also working on a school-to-apprenticeship program for cook/chef.
4. The Alaska Pipeline Worker Training Program continues to be successful in FY2011 with 42% of graduates employed at least six months after graduation with a salary of at least $5,000 more than before their training for a comparable time.
5. Through third quarter FY11, 386 Alaskans received Health Safety Environmental (HSE) training in preparation for pipeline construction-related employment.

6. AVTEC has redesigned the curriculum for the four-year, 8,000-hour registered apprenticeship in the occupation of diesel technician.
7. AVTEC is providing GED and academic learning support, pre-pipeline training and support for academic preparedness through distance training at Regional Training Centers (RTCs).
8. Southwest Alaska Vocational and Educational Center (SAVEC), in collaboration with CH2MHILL, received State Training & Employment (STEP) funds to train 40 general maintenance technicians for employment with the company.
9. SAVEC is partnering with Naknek Electric Association in training geothermal drillers. This occupation is recognized as a portable skill to oil and gas.
10. The DOLWD-OA continues to partner with the University of Alaska on many programs including Project Jump Start, a degree completion program for apprentices working toward a degree in project management, safety or supervision. DOLWD offers a one-time incentive for graduate apprentices to begin work on an associate degree.
11. In FY11 DOLWD continued to support the Fairbanks Pipeline Training Center (FPTC); more than 80 apprentices participated in training last year and will do so again in November 2011.
12. In addition to apprenticeship and craft training, another important component of the FPTC is the Process Tech program offered by the University of Alaska Fairbanks (UAF) and housed on site. Through this university degree program, Alaskans have the opportunity to train for employment in plant operations used in many industries. This occupation is also being explored as an apprenticeable occupation.
13. The federal waiver for Workforce Investment Act (WIA) youth to receive Individual Training Accounts allowed 49 youth to be trained in high-demand, high-wage jobs. In FY10 construction ranked as the second most common training offered through Individual Training Accounts.
14. Alaska's WIA Youth program provided comprehensive training services focusing on career and technical education to more than 1,200 participants in FY10.
15. The Alaska Gasline Inducement Act includes a provision encouraging the licensee to hire to the maximum extent possible Alaskans for the Alaska portion of the project. DOLWD has continued discussions with the project partnership on a formal and regular employment reporting mechanism.

5. Alaska and the U.S. Natural Gas Picture

Despite the current and expected moderating effects of shale gas on North American prices, there remains good reason to expect that Alaska gas will be a necessary and beneficial component of the national gas picture.

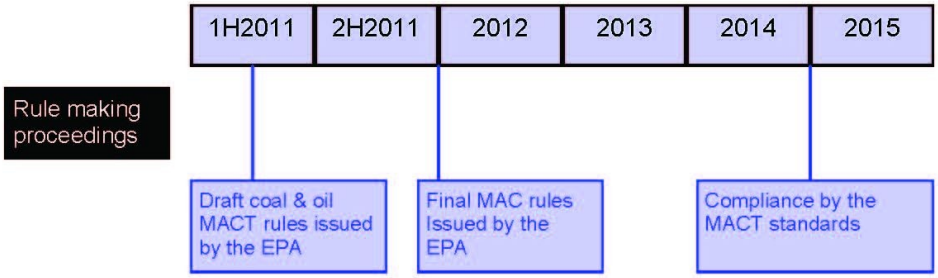
The US Energy Information Administration (EIA) recently updated and released its Annual Energy Outlook (AEO) 2011. As of April 26, 2011, the EIA's "reference case" gas price projection describes a nominal dollar Henry Hub spot price of $6.10/MMBtu in 2020, rising to $11.28/MMBtu by 2035.*(i)* After accounting for location differentials between Henry Hub and the AECO Hub, an in-service date of 2020 for the Alaska Pipeline Project would appear to offer reasonable netbacks that become increasingly more favorable with time.

In assessing this latest AEO it is critical to note that the EIA reference case projects modest US natural gas demand growth and forecasts that the relative share of natural gas in the US electricity generation mix will remain fairly constant over the next twenty five years. In 2011 EIA forecasts annual US gas consumption to be 24.5 Tcf, rising to 26 Tcf in 2020 and 27.2 Tcf in 2035. The implied average annual growth rate is 0.6% per year – less than that of coal (.8% per year) and less than 25% of the growth rate of the economy as a whole.

EIA's view of the relative importance of natural gas contrasts with a number of other projections. The relative roles of coal and natural gas in the nation's electricity generation mix marks one of the greatest sources of uncertainty over future natural gas demand levels. A recent MIT study projects natural gas consumption at over 29 Tcf by 2035 – nearly 10% more demand than what EIA suggests. *(ii)* Similarly, Black and Veatch's corporate assessment of natural gas demand in 2035 is nearly 30 Tcf, implying an average annual growth rate of 2.3% in the power sector. *(iii)* Meanwhile, BP sees natural gas's share of the North American power sector growing from roughly 25% around 2011 to 41% in 2030. *(iv)* In contrast, EIA suggests that natural gas' share of the power sector in the US actually falling. *(v)*

It's regularly noted that the problem with forecasting the future is that it is uncertain. A reasonable case can certainly be made for a dazzling variety of assumptions – and assumptions drive modeling results. That said, there are reasons to view EIA's reference case projection as being relatively conservative with regard to natural gas prices. A number of factors could readily push gas prices higher. In its reference projection EIA largely does not consider new policy initiatives; instead, EIA models a view of the world as it exists today. Accordingly, there are a number of looming policy and economic drivers towards increased demand for natural gas that EIA may not model.

Chief among these drivers is the current wave of environmental regulations that will favor gas at the expense of coal. The Clean Air Act and various court orders require the EPA to issue new draft rules for controlling mercury and acid gas (nitrogen oxides and sulfur dioxides) this spring. Final rules will be implemented within three years of final rule publication (likely 2015). The rules will specify new standards for Maximum Available Control Technology for both hazardous pollutants (e.g., mercury emissions from burning coal) and criteria pollutants (sulfur and nitrogen oxides).



Source: Goldman Sachs research estimates.

These new Maximum Available Control Technology standards will likely require many coal plants to install costly pollution control equipment. The optimal decision in many instances will be to forego the expensive investment in pollution control technology. Coal plants will instead be retired, and new gas-fired power generation facilities constructed. A recent Goldman Sachs analysis, looking only at nameplate generation costs suggested that 38-45 gigawatts – or 12-14% -- of the existing coal fleet will be retired. *(vi)* When considering the particular difficulties that owners of merchant generation power plant owners face (as compared to facilities owned by electric utilities), the Brattle Group independently estimated an even greater range of premature retirements – 40-55 gigawatts of coal-fired capacity, reducing coal demand by about 15% and increasing gas demand by about 10%. *(vii)* Similar findings have been reported by the consulting firm ICF and the investment bank Credit Suisse. *(viii)* In fact, EIA's 2011 AEO performs sensitivity runs that examine this dynamic, and which generate broadly similar results.

In addition, under the Clean Water Act, EPA is expected to issue new rules for cooling water intake structures and waste water discharges in 2011-2012 for power plants. Depending on the details, the Brattle Group estimates that a cooling tower mandate could force an additional 11-12 gigawatts of coal plant retirements. (NOTE: Although the impact of Clean Water Act requirements was not the subject of

the Brattle study, new cooling tower requirements could also affect prospects for nuclear energy.) Natural gas demand would, again, materially increase as gas-fired plants do not have water cooling needs.

Finally, we note that EIA's reference case assumed a greater than 10% increase in nuclear generation capacity, with only one nuclear plant retirement through 2035. Recent events in Japan raise serious questions about the ability of owners of decades-old facilities to be able to secure approval for plant relicensing, let alone the prospects for siting, building, and financing new nuclear plants. Between now and 2021 over 14 existing plants, representing over 12 gigawatts of nuclear power capacity, must be relicensed. In the next ten years an additional two plants, with a capacity of over 4.4 gigawatts, are currently planned but now face increased regulatory risk. Were all of this nuclear capacity displaced by gas – which faces the lowest regulatory risk of the conventional fuels – there would be nearly 3 Bcf/day of additional demand by the 2020 time frame. *(ix)*

Besides the uncertainty around increased gas needs for electricity generation, augmented reliance on natural gas for transportation – either as a direct source of fuel, or indirectly via electric vehicles – may form an additional material source of demand. The wider the energy equivalent price disparity between natural gas and oil, the more substantial will the pressure be to migrate some of the US gasoline and diesel transportation on oil towards domestic natural gas energy. Bipartisan legislation, the NAT GAS Act, would put in place new Federal incentives to do just this. Depending upon infrastructure build out, by 2030 natural gas vehicles could consume an additional 11-13 Bcf/day. *(x)* Increased penetration of electric vehicles would also increase demand for electricity and, indirectly, demand for natural gas. The EIA's reference case does not address these scenarios.

On the supply side, shale gas will certainly play an important role but considerable uncertainty still surrounds its ultimate cost of production. In its reference case, EIA assumes a near-tripling of shale gas production between 2009 and 2035. This projection is marked by considerable uncertainty, however. Outside of the Barnett shale play, cumulative production from major shale plays averages less than 1.75% of the total resource base. *(xi)* However, EIA's reference case assumes that production rates achieved to date are representative of the formations as a whole, despite the fact that production from neighboring shale gas wells can differ by a factor of 3, and geological differences within a play can lead to production differences of a factor of 10. Accordingly, the evolution of finding and development costs is difficult to assert with confidence; if costs do not continue to fall, or indeed if they climb, then the costs of shale gas could materially rise. The EIA puts it perhaps best: "[T]here is a high degree of uncertainty around the projection, starting with the estimated size of the technically recoverable shale gas resource… the estimates embody many assumptions that might prove to be untrue in the long term." *(xii)*

Given that shale play "sweet spots" will be drilled first, the tripling of shale gas production would require a truly massive increase in rigs drilling for gas. *(xiii)* The increased pressure on drill rig availability would seem likely to lead to increased gas production costs – especially if gas and oil prices continue to diverge from their long term historical relationships, making oil drilling the preferred use for available rigs.

(i) U.S. Energy Information Administration (AEO). "Annual Energy Outlook 2011." Department of Energy. Web. April 2011 <http://www.eia.gov/forecasts/aeo/pdf/0383(2011).pdf>

(ii) MIT. "Study on the Future of Natural Gas." 2010 <http://web.mit.edu/mitei/research/studies/report-natural-gas.pdf>

(iii) Black & Veatch. "Growing Shale Resources: Understanding Implications for North American Natural Gas Prices." Nov. 2010 <http://www.gasline.alaska.gov/newsroom/Presentations/BV%20AK%20LT%20Prices%20Report%2011232010.pdf>

(iv) BP. "Energy Outlook 2030." London, January 2011 <http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/2010_downloads/2030_energy_outlook_booklet.pdf), at pg. 52.>

(v) AEO 2011 Early Release Overview." DOE, Executive Summary. <http://www.eia.doe.gov/forecasts/aeo/index.cfm>

(vi) Lapides, Michael; Ritchie, Joe; Benjamin, Andre; Malat, Scott. "*Environmental rules for US coal plants to impact multiple sectors." Goldman Sachs, Global Investment Research; March 9, 2011.* <http://www2.goldmansachs.com/ideas/environment-and-energy/goldman-sachs/coal.pdf>

(vii) Celebi, Metin; Graves, Frank; Bathla, Gunjan; and Bressan, Lucas. "Potential Coal Plant Retirements Under Emerging Environmental Regulations." The Brattle Group, (December 8, 2010). <http://www.brattle.com/_documents/uploadlibrary/upload898.pdf>

(viii) EIA's 2011 AEO, Table 11. <http://www.eia.gov/forecasts/aeo/IF_all.cfm#prospectshale>

(ix) "Backend rally to persist as nuclear concerns gain momentum." Goldman Sachs Commodities Research, *Natural Gas Weekly*, (March 29, 2011).

(x) "Transportation policy gears up, but infrastructure still the speed limit*."* Goldman Sachs Commodities Research; *Natural Gas Weekly*, (April 6, 2011).

(xi) Black & Veatch. "Growing Shale Resources: Understanding Implications for North American Natural Gas Prices." November 2010. <http://www.gasline.alaska.gov/newsroom/Presentations/BV%20AK%20LT%20Prices%20Report%2011232010.pdf.>

(xii) AEO 2011"Prospects for shale gas." <http://www.eia.gov/forecasts/aeo/IF_all.cfm#prospectshale>.

(xiii) For discussion of the relationship between rig use and increase shale gas production, SEE Black & Veatch, "Growing Shale Resources: Understanding Implications for North American Natural Gas Prices." November 2010. <http://www.gasline.alaska.gov/newsroom/Presentations/BV%20AK%20LT%20Prices%20Report%2011232010.pdf.>

6. Conclusion

APP continues to progress in a manner consistent with the purpose and intent of the Alaska Gasline Inducement Act. The project continues commercial negotiations with prospective shippers to obtain the commercial alignment in the form of precedent agreements. APP continues to make measurable progress on the regulatory roadmap leading to its filing with FERC in October 2012.

Over the past five months the Project has continued to make progress on defining the pipeline route. Because no announcement has been made regarding the ultimate route of this pipeline, APP's field work has focused along the Alaska Highway corridor between Delta Junction and the Canadian border. APP possesses a significantly higher understanding of the Valdez route because the proposed right-of-way aligns with TAPS.

From an engineering standpoint APP and its contractors continue to refine the specifications for the pipeline and the proposed gas treatment plant which will be located in Prudhoe Bay. The Project has met monthly with staff from the Alaska Gasline Coordinator's Office to update the state on that progress.

APP engaged in workshops and meetings with state and federal agencies from November 2010 through March 2011. The Project has concluded most of its 34 community leadership and open house meetings.

Just prior to the filing of this report, APP filed preliminary draft resource reports one and ten with FERC that identify the proposed gas pipeline routes and alternatives. These reports will be posted for public review and comment on FERC's website. It is also anticipated that FERC will issue its Notice of Intent to prepare an EIS sometime this spring or summer 2011, followed by scheduling public scoping meetings on or about January 2012.

As of March 31, 2011, TC Alaska has been reimbursed a total of $ 49,391,442 for expenditures submitted through the third quarter (3Q) of 2010.

* * *

Monitoring of the Project Team's (TransCanada and ExxonMobil) progress on the Alaska Pipeline Project (APP)
November 2010

Patrick Anderson from Pingo International Inc. (consultant to the State of Alaska) and Eric Hatleberg from the State of Alaska met with Project representatives on November 2nd though November 5th in the Project's Calgary and Houston offices. Keith Dodson from Westney Consulting Group (consultant to the State of Alaska) joined the meetings in Houston. The purpose of the meetings was to obtain a status report on the Project's efforts to develop the Alaska Pipeline Project (APP). The following are the Project representatives who were met with during these meetings:

- Paul Pike-APP Senior Project Executive
- Mel Johnson- Project Director-Pipeline and Compression
- Rick Elder-Business Manager
- Dave Johnson-Manager-Safety, Security, Health & Environment Manager
- Larry Harms- EIS Project Manager
- Myron Fedak- Environmental, Regulatory and Land (ERL) Manager-Alaska
- David Montemurro-Environmental, Regulatory and Land (ERL) Manager- Canada
- Jack Beattie- Director, Engineering Manager
- Deb Raught-Technical Manager
- Mike Quesnel-Director, Project Services
- Joe Zhou- Pipeline Engineering Manager
- Raul Lopez-Engineering Manager-Gas Treatment Plant (GTP)
- Robert Eadie-GTP Execution Planning Manager
- Karen Etherington-Environmental Planning and Permitting Advisor (Canada)
- Richard Fafara-Construction Subject Matter Expert
- Harold Retzloff- Lead Project Accountant
- Jeff Chapman-GTP Environmental Lead
- Dave Pragnell-Compression Subject Matter Expert

- Gordon Craig- System Hydraulics
- Laurant Pardigon- Environmental Subject Matter Expert (Alaska)
- Brandon Henneke-Interface Coordinator
- Chuck Middleton- Field Program Coordinator
- Christina Mockridge-Project Coordinator

The people were met individually in some cases and in small groups in other cases. The goals of the meetings were to gather the following information:

1. Understand the progress the individual groups have made since the last series of meetings.
2. Identify any issues that have arisen that may significantly affect the scope of the Alaska Pipeline Project, its cost or its timing.

This Monthly Monitoring Report is written as an update to the previous Monthly Monitoring Report. The basic data on things like Project scope, schedule expectations and involved parties included in the previous Monthly Monitoring Reports will not be repeated.

The following issues were among those discussed during the above series of meetings:

1. The Project's 2010 field program is complete. The 2011 field program is in the final planning stages. Indications are that this field program in Alaska will primarily consist of the drilling of a number of boreholes along the pipeline.

2. The Project continues to investigate the impact of the recently approved Federal air emissions regulations on the design of the Gas Treatment Plant (GTP) and the pipeline compressor stations. The Project is working to understand the issues and develop plans for addressing the requirements associated with these new regulations.

3. The Project participated in an initial regulatory process workshop, chaired by the Office of the Federal Coordinator (OFC) and US Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). A number of federal and state regulators and agencies that will likely be involved in assessing the various applications of the Project were in attendance. The focus of this interagency meeting was explaining PHMSA's role in the assessment of the Project and for PHMSA to identify some of the Project issues that they consider to be of importance. The Project and other pipeline project proponents also made presentations to this interagency meeting.

Monitoring of the Project Team's (TransCanada and ExxonMobil) progress on the Alaska Pipeline Project (APP)
December 2010

Patrick Anderson of Pingo International Inc. and Keith Dodson from Westney Consulting Group (both consultant to the State of Alaska) and Eric Hatleberg from the State of Alaska met with Project representatives on December 6th though December 10th in the Project's Calgary and Houston offices. Keith Dodson from Westney Consulting Group (consultant to the State of Alaska) joined the meetings in Houston. The purpose of the meetings was to obtain a status report on the Project's efforts to develop the Alaska Pipeline Project (APP). The following are the Project representatives who were met with during these meetings:

- Paul Pike-APP Senior Project Executive
- Mel Johnson- Project Director-Pipeline and Compression
- Vince Alberico-GTP Senior Project Manager
- Rick Elder-Business Manager
- Larry Harms- EIS Project Manager
- Myron Fedak- Environmental, Regulatory and Land (ERL) Manager-Alaska
- Jack Beattie- Director, Engineering Manager
- Deb Raught-Technical Manager
- Mike Quesnel-Director, Project Services
- Joe Zhou- Pipeline Engineering Manager
- Raul Lopez-Engineering Manager-Gas Treatment Plant (GTP)
- Karen Etherington-Environmental Planning and Permitting Advisor (Canada)
- Dave Pragnell-Compression Subject Matter Expert
- Jim Kyfiuk-Project Contacts Manager
- Jim Oswell-Geotechnical Subject Matter Expert
- Brandon Henneke-Interface Coordinator
- Chuck Middleton- Field Program Coordinator
- Susan Kost-Senior Project Coordinator
- Christina Mockridge-Project Coordinator

The people were met individually in some cases and in small groups in other cases. The goals of the meetings were to gather the following information:

1. Understand the progress the individual groups have made since the last series of meetings.
2. Identify any issues that have arisen that may significantly affect the scope of the Alaska Pipeline Project, its cost or its timing.

This Monthly Monitoring Report is written as an update to the previous Monthly Monitoring Report. The basic data on things like Project scope, schedule expectations and involved parties included in the previous Monthly Monitoring Reports will not be repeated.

The following issues were among those discussed during the above series of meetings:

1. The Project is fully engaged in a dialogue with the various federal and state regulators and agencies. In December there are plans for a "Routing Workshop" with the relevant federal and state regulators and agencies. In this workshop the Project plans to provide a relatively detailed description of the Project's scope and construction plans. They will also provide route maps for the Project's pipelines in Alaska. The Project will explain the rationale used in the selection of the pipeline route in a number of challenging areas such as areas having restricted space or locations where there other pipelines or roads in close proximity.

2. Other interagency workshops are being planned for issues such as watercourse crossings, pipeline right of way preparation and dredging. The scope and dates of these workshops will be defined in the New Year.

3. The Project is continuing technical meetings with PHMSA where the unique design and construction requirements of this large arctic project are explained and discussed. In November there was a meeting in Chicago where the unique material requirements of the Project were discussed. In December in Anchorage the Project's and PHMSA's technical staff will discuss the design requirements of pipelines that cross areas with continuous and discontinuous permafrost.

Monitoring of the Project Team's (TransCanada and ExxonMobil) progress on the Alaska Pipeline Project (APP)
January 2011

Patrick Anderson from Pingo International Inc. (consultant to the State of Alaska) and Eric Hatleberg from the State of Alaska met with Project representatives on January 17th though January 21st in the Project's Calgary and Houston offices. Keith Dodson from Westney Consulting Group (consultant to the State of Alaska) joined the meetings in Houston. The purpose of the meetings was to obtain a status report on the Project's efforts to develop the Alaska Pipeline Project (APP). The following are the Project representatives who were met with during these meetings:

- Paul Pike-APP Senior Project Executive
- Mel Johnson- Project Director-Pipeline and Compression
- Vince Alberico-GTP Senior Project Manager
- Dave Johnson-Manager-Safety, Health & Environment
- Rick Elder-Business Manager
- Larry Harms- EIS Project Manager
- Myron Fedak- Environmental, Regulatory and Land (ERL) Manager-Alaska
- David Montemurro-Environmental, Regulatory and Land (ERL) Manager- Canada
- Jack Beattie- Director, Engineering Manager
- Grant Martin-TransCanada Director Supply Chain Management-Major Projects
- Mike Quesnel-Director, Project Services
- Joe Zhou- Pipeline Engineering Manager
- Raul Lopez-Engineering Manager-Gas Treatment Plant (GTP)
- Robert Eadie-Director, Facilities Lead-GTP
- Richard Fafara-Construction Planning Lead
- Karen Etherington-Environmental Planning and Permitting Advisor (Canada)
- Harold Retzloff-Project Lead Accountant
- Dave Pragnell-Compression Subject Matter Expert
- Jim Kyfiuk-Project Contacts Manager

- Brandon Henneke-Interface Coordinator
- Chuck Middleton- Field Program Coordinator
- Susan Kost-Senior Project Coordinator
- Christina Mockridge-Project Coordinator

The people were met individually in some cases and in small groups in other cases. The goals of the meetings were to gather the following information:

1. Understand the progress the individual groups have made since the last series of meetings.
2. Identify any issues that have arisen that may significantly affect the scope of the Alaska Pipeline Project, its cost or its timing.

This Monthly Monitoring Report is written as an update to the previous Monthly Monitoring Report. The basic data on things like Project scope, schedule expectations and involved parties included in the previous Monthly Monitoring Reports will not be repeated.

The following issues were among those discussed during the above series of meetings:

1. FERC's December Routing Workshop in Anchorage appears to have been well received by the participants. There were about 70 federal and state regulatory or agency people in the workshop plus 19 Project people. The Project presenters provided a high level description of the Project scope and a briefing of their construction plans. They also provided a review of the pipeline routes in Alaska. The Project had arranged for a GIS system to be available in the meeting that allowed them to focus on any area of the pipeline route that was of interest to the workshop attendees. It is understood this feature of the presentation was particularly appreciated by the attendees.

2. The next series of FERC Workshops is planned for March 1st through 3rd in Anchorage. The workshop topics are:

    A. Pipeline waterbody crossings

    B. Pipeline right of way preparation and maintenance

    C. Pipeline construction overview

Monitoring of the Project Team's (TransCanada and ExxonMobil) progress on the Alaska Pipeline Project (APP)
February 2011

Patrick Anderson from Pingo International Inc. (consultant to the State of Alaska) and Eric Hatleberg from the State of Alaska met with Project representatives on February 14th though February 18th in the Project's Calgary, Denver and Houston offices. Keith Dodson from the Westney Consulting Group (consultant to the State of Alaska) plus Marie Crosley and Antony Scott from the State of Alaska also attended the Denver and Houston meetings. The purpose of the meetings was to obtain a status report on the Project's efforts to develop the Alaska Pipeline Project. The following are the Project representatives and their contractors who were met with during these meetings:

- Paul Pike-APP Senior Project Executive
- Mel Johnson- Project Director-Pipeline and Compression
- Vince Alberico-GTP Senior Project Manager
- Dave Johnson-Manager-Safety, Health & Environment
- Rick Elder-Business Manager
- Deb Raught (Technical Manager)
- Myron Fedak- Environmental, Regulatory and Land (ERL) Manager-Alaska
- Mike Quesnel-Director, Project Services
- Raul Lopez-Engineering Manager-Gas Treatment Plant (GTP)
- Robert Eadie-Director, Facilities Lead-GTP
- Richard Fafara-Construction Planning Lead
- Glenn Johnston-Pipeline Subject Matter Expert
- Karen Etherington-Environmental Planning and Permitting Advisor (Canada)
- Harold Retzloff-Project Lead Accountant
- Brandon Henneke-Interface Coordinator
- Chuck Middleton- Field Program Coordinator
- Susan Kost-Senior Project Coordinator
- Dave Kmet-Canadian Land Subject Matter Expert
- Christina Mockridge-Project Coordinator
- Jeff Chapman-GTP Team member
- Dave Nold-GTP Team member
- Glen Walker-GTP Team member

- Alan Hardison-GTP Team member
- Jeff Lipscomb-GTP Team member
- Kemi Harris-GTP Team member
- Dwight Brixey-GTP Team member

The people were met individually in some cases and in small groups in other cases. The goals of the meetings were to gather the following information:

1. Understand the progress the individual groups have made since the last series of meetings.
2. Identify any issues that have arisen that may significantly affect the scope of the Alaska Pipeline Project, its cost or its timing.

This Monthly Monitoring Report is written as an update to the previous Monthly Monitoring Report. The basic data on things like Project scope, schedule expectations and involved parties included in the previous Monthly Monitoring Reports will not be repeated.

The following issues were among those discussed during the above series of meetings:

1. The Project is working hard to prepare for the next series of FERC Interagency Workshops. The plan is to provide a substantial amount of Project information to the various Federal and State agency staff so they will have a clear understanding of the Project's plans for the design, construction and operation of the pipeline across Alaska. The date and workshop topics are:

    A. March 1- Pipeline construction overview

    B March 2-Pipeline right-of-way preparation and maintenance

    C. March 3-Pipeline watercourse crossing

2. The Project held the third in the series of meeting with PHMSA in February in Washington DC. The focus of the meeting was the Project's plans for handling of the key issues of quality management and integrity management. The Project also described their plans for the staged delivery of information to PHMSA.

3. The Project is in the final stages of planning for a series of Open Houses and community meetings in Alaska and Canada. The meetings in Alaska are planned to start on March 8th. The intent is to generally have these meetings at communities along the pipeline corridor.

4. The Project has made significant progress in the development of a draft of the FERC Resource Report #1 (Project description) and #10 (Project alternatives). The initial drafts of the reports were prepared by the Technical Teams for the Pipeline and Gas Treatment Plant. These drafts have been combined and enhanced by the Alaska Environmental Regulatory and Land (ERL)

Team. The combined drafts are currently being circulated within the Project to identify areas where further enhancements are required. The Project's goal is to forward the drafts of these two key reports to the FERC in April.

5. The Project is progressing with their efforts to optimize the design and construction plans for the Gas Treatment Plant (GTP). In February the Project provided an update on each of the optimization ideas that have been identified. Some of the ideas have proven to be very beneficial and have been adopted into the GTP base plan. Others have been determined to not provide sufficient benefit and will not be considered further. The last group of optimization ideas require further study before a decision can be made.

6. The Project is planning to start the winter portion of the field programs in Alaska and Canada next month. The engineering field program in Alaska for the winter of 2011 will focus on completing a series of boreholes along the pipeline corridor that were not completed in 2010. The final scope of the 2011 summer program is still being defined.

7. The Project is preparing to install an air monitoring station at a site near Prudhoe Bay. The final location of the station is being discussed with the Alaska regulator.

Monitoring of the Project Team's (TransCanada and ExxonMobil) progress on the Alaska Pipeline Project (APP)
March 2011

Patrick Anderson from Pingo International Inc. (consultant to the State of Alaska) and Eric Hatleberg from the State of Alaska met with Project representatives on March 8th though March 11th in the Project's Calgary and Houston offices. Keith Dodson from the Westney Consulting Group (consultant to the State of Alaska) and Antony Scott from the State of Alaska also attended the Houston meetings. The purpose of the meetings was to obtain a status report on the Project's efforts to develop the Alaska Pipeline Project. The following are the Project representatives and their contractors who were met with during these meetings:

- Paul Pike-APP Senior Project Executive
- Mel Johnson- Project Director-Pipeline and Compression
- Dave Johnson-Manager-Safety, Health & Environment
- Rick Elder-Business Manager
- Deb Raught-Technical Manager
- Myron Fedak- Environmental, Regulatory and Land (ERL) Manager-Alaska
- David Montemurro-Environmental, Regulatory and Land (ERL) Manager- Canada
- Mike Quesnel-Director, Project Services
- Joe Zhou- Pipeline Engineering Manager
- Joanne Unger-Manager-Pipeline Project Execution
- Raul Lopez-Engineering Manager-Gas Treatment Plant (GTP)
- Robert Eadie-Director, Facilities Lead-GTP
- Richard Fafara-Construction Planning Lead
- Harold Retzloff-Project Lead Accountant
- Dave Pragnell-Compression Subject Matter Expert
- Gordon Craig- System Hydraulics
- John Greenslade-Permafrost Subject Matter Expert
- Dan Lillig-Materials Subject Matter Expert
- Brandon Henneke-Interface Coordinator

- Susan Kost-Senior Project Coordinator

The people were met individually in some cases and in small groups in other cases. The goals of the meetings were to gather the following information:

1. Understand the progress the individual groups have made since the last series of meetings.
2. Identify any issues that have arisen that may significantly affect the scope of the Alaska Pipeline Project, its cost or its timing.

This Monthly Monitoring Report is written as an update to the previous Monthly Monitoring Report. The basic data on things like Project scope, schedule expectations and involved parties included in the previous Monthly Monitoring Reports will not be repeated.

The following issues were among those discussed during the above series of meetings:

1. The Project participated in a very successful series of FERC interagency workshops in March. During the three days of meetings over 80 federal and state agency staff (from 23 different agencies) attended the workshops in addition to 20 people from the Project. The Project presented a large amount of information to the attendees plus responded to a number of questions from the agency staff. The date and workshop topics were:

    A. March 1- Pipeline Construction Overview
    The workshop discussed the principles of large diameter, buried, pipeline construction activities in both winter and summer seasons.

    B. March 2-Pipeline Right-of-Way Preparation and Maintenance
    The workshop discussed a general approach to ROW preparation and related thermal and geologic issues concerning installation and operation of a buried, high pressure chilled gas pipeline in an arctic environment.

    C. March 3-Pipeline Watercourse Crossing
    The workshop discussed waterbody crossing classifications, their related field work as well as the pipeline installation methods typically used in given situations. Reviews of several Alaska site-specific watercourse crossings were given.

2. The Project has initiated a series of open houses and community meetings in Alaska and Canada. Over the next couple months people who live and work along the pipeline corridor will be provided with an opportunity to learn more about the Project and to ask questions. Initial APP community meetings took place in the summer of 2010. Meeting schedules are maintained on the APP website at; http://www.thealaskapipelineproject.com/community_meetings

3. The Project has almost completed the development of preliminary drafts of FERC Resource Report #1 (Project description) and #10 (Project alternatives). The Project's goal is to submit these drafts to FERC in April. The Project has started work on several of the other Resource Reports with a goal of submitting drafts of all Resource Reports to FERC by December 2011.

4. The Project is continuing their dialogue with the Alaska Department of Transport. These discussions include providing DOT with updated information on the Project's logistics plan options as well as gaining a better understanding of DOT's work plans and schedules.

5. The Project has started work on the winter field program in Alaska and Canada. The engineering field program in Alaska for the winter of 2011 will focus on completing boreholes at 8 locations along the pipeline corridor. Work continues on the finalization of the scope of the 2011 summer field program.

6. The Project continues its dialogue with PHMSA. The two groups have established a series of technical working groups which will explore a number of specific issues.

7. After extensive studies, the Project has decided to remove the gas turbine driven chiller trains from the compressor stations in Alaska and the first compressor station in Canada and replace them with gas to gas heat exchangers and aerial coolers. Both design concepts succeed in cooling the gas coming out of the gas compressors to an acceptable level but this new approach will reduce the compressor station footprint, the amount of fuel gas used to cool the gas plus reduce overall air emissions from the compressor stations even though 2 additional compressor stations will be required in Alaska.