Stranded Gas Hearings

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Getting a Job on the Pipeline—How Many People, With What Skills, and During Which Phase of Construction or Operation?

Tony Palmer, Vice President, Alaska Business Development, TransCanada, October 14, 2004.

MR. TONY PALMER, Vice President, Alaska Business Development, TransCanada, gave the following narrative to a PowerPoint presentation [copy available in committee file].

Thank you, Mr. Chairman and members of the committee. I'm pleased to be in front of this committee again after an eventful day yesterday, which I enjoyed. I didn't get an opportunity to see all of it but I did get to enjoy most of the presentations you saw yesterday. Today my presentation will be short but I was asked to speak to project workforce skills requirements. I'll walk that through for you quickly and would be happy to try to respond to any of your questions as we go through or at the end at your pleasure.

Just a quick map on the pipeline - I won't spend any time on this other than to show you that the existing prebuild starting from central Alberta - that's in the green, from a location called Caroline just north of Calgary - it currently exists down to a point on the U.S. border on the east side called Monchy. That's on the Montana border. It connects with the northern border and the pipeline going west connects at Kingsgate on the U.S. border - Idaho border - with PG&E national energy group. That used to be called PGT but now it's called GTN.

I will speak today to primarily the two - there are four phases of the project. We're still in the development phase. I will speak primarily to the preconstruction and construction phases, which are the highest labor components for this project and then operations as well, which I will not speak to today. I'll give you a high level project schedule and I'll speak to labor details in terms of types of employees required for this project and quickly a contracting plan and finally summarize - I do have a couple of videos to show you some actual construction.

First to address preconstruction - this slide [4] shows you general categories of preconstruction and construction phases. Prior to preconstruction, there will be work done in the field to gather data for project planning, engineering, environmental, socio-economic, etcetera, which will provide opportunities for local businesses. The labor numbers that I'm going to show you and the quantities are not included for events occurring before the preconstruction phase. Just to indicate for you what terminology we're using when we talk about preconstruction, we mean gravel processing, access road construction, stockpiling equipment at sites, building camp sites, compressor station sites, development, receiving the pipe so receiving it within the state, double jointing - that's connecting the pipe so you have two pieces of pipe connected together, coating the pipe - it needs to be coated to protect it for a long term basis, that would occur as well. Haul and stockpile the pipe - so haul it to locations along the right-of-way to be ready for construction and brush clearing on the right-of-way. That's fundamentally what we mean by preconstruction. Sometimes it's called logistics but fundamentally preparing to do the construction phase.

The construction phase is truly pipe construction - connecting the pipe, laying it in the trench and covering it, and compressor station construction as well.

This is our project schedule [slide 5], which we put in front of the state with our Stranded Gas Development Act application on June 1. I've given you two designations here, both calendar years starting in 2005, as well as year one through eight and I can tell you that, of course, it's all driven off of the first row, which is when the commercial agreement is struck. We have anticipated here a commercial agreement being struck by the middle of 2005. If that doesn't occur, the project schedule will shift backward proportionately. So just be aware of that.

CO-CHAIR SAMUELS interjected to note that ConocoPhillips testified earlier that such a schedule would be considered to be extremely aggressive. He asked Mr. Palmer to respond.

MR. PALMER said if a commercial agreement is reached with TransCanada by mid-2005, TransCanada can achieve this schedule to begin service in 2012.

CO-CHAIR SAMUELS asked if he is speaking to "signing on the dotted line to gas flowing."

MR. PALMER said TransCanada holds an existing certificate in Canada and would not have to file for new certificates, which would give it a timing advantage. He then continued his presentation.

I won't take you through the other components. This is all laid out but fundamentally we'd work through the engineering and field study data and you'd be at a point in 2008 where you'd have arranged your financing, starting to procure you're equipment, as well as steel, then you'd start preconstruction at the same time - the end of 2008. Then we have a two-year construction timeframe, which I can tell you includes working winter and summer both in Alaska and Canada and I'll actually show you the winter-summer construction schedule as we walk through with how many crews and where they're working. So I'll show you that later in the presentation.

CO-CHAIR SAMUELS asked if regarding gearing up for job opportunities, most of the [employment] will occur between 2009 and 2012.

MR. PALMER said the bulk of the work will occur beginning in late 2008 and end in late 2011. He then continued.

So I'll take you through the numbers by skill type during preconstruction. This is for the Alaska component of the project only and these, of course, are preliminary estimates based on what we have given you before. It's a 48-inch pipeline, high pressure, moving 4.5 bcf/day initially. That's what's contemplated here. If the project changes and volumes change, these numbers will change.

So, just walk through it - pipefitters and welders, in fact I'll show you a video shortly to show how the welding process has changed on high-pressure pipelines over the years. Equipment operators - modest numbers there as well. A large number of truck drivers and I have a video on that as well showing you how moving the pipe to the site is a very significant event during preconstruction. Some labor numbers - supervisory and others - and other is really the catchall for all the other components. Then you see totals in the 1300 to 1600 individuals hired just during that peak time of preconstruction.

Here are the construction numbers - during the actual two-year construction timeframe. This is a peak labor requirement. You'll see ranges around this. Once again you see larger numbers for pipefitters and welders, equipment operators and truck drivers - very large numbers at this point, as well as laborers. Higher number, of course, for supervisory and others, once again a catchall, gives you numbers in the 5500 to 7000.

Now you will see that preconstruction does overlap construction because this will be staged down the right-of-way and, in fact, I'll show you here on the next slide, which is a summary because events will be occurring simultaneously in different locations along the right-of-way.

CO-CHAIR SAMUELS asked if Mr. Palmer is estimating 6,000 full-time jobs for three-years.

MR. PALMER replied, "No. What I'm describing for you here are 6,000 at the peak. Now over the course of that two years, we may be at lower numbers at some point during the two years, but what I'm giving you are the peak numbers and those jobs will be for most of the period but I can't assure you they're going to be for the full two years." He then continued his presentation.

The next slide [8] is just a summation of the previous two to show you that in terms of overall peak, you're looking at numbers in the 1600 to 8600 range so in the order of 8,000 full time jobs during that two to three year timeframe, they will not necessarily be there for the full three years but they will be there for a significant component of that - a very significant project in terms of establishing manpower, putting it in place in these categories.

This next slide [9], and I hope it shows up better in your handout than it does here, the next slide identifies for you contractors A-B-C and D so four different contractors, four different spreads, to use pipeline terminology, would be working winter and summer. And if I just looked, starting from Prudhoe Bay, at the orange, the orange is winter construction so contractor A would have winter construction in our schedule starting from Prudhoe Bay south and contractor A would have a second winter construction from about midway between Prudhoe down to Atigun Pass. They would do the second part of that. They'd have a summer construction south of the Atigun Pass and so on as you work your way down the right-of-way. So there will be simultaneous work occurring across the project by contractors A-B-C and D, winter and summer. And the same thing will be occurring on the Canadian side so that you'll have a massive alignment of individuals on this project both in Canada and Alaska at the same two to three year window.

[The following testimony accompanied a video MR. PALMER showed.]

I would like to just spend a moment for those of you that may not be familiar with construction. This is what we mean by trenching. This is how the majority of the pipe trench will be established. You dig it with a trencher. When you go through the Atigun Pass and up through the Brooks Range you'll clearly be blasting but a lot of the digging of the actual trench is done with a piece of equipment like this. You can do that for a 48-inch diameter pipeline. We do that on our systems across Canada. Just to give you an indication as to how quickly this moves down the right-of-way is a very efficient piece of equipment that allows you to dig the trench and dispose of your waste material.

One more item I thought I'd show you - the old version of moving pipe and this, as you can see, is some 80 to 90 years ago. Here's why you need so many truck drivers. You can see this truck is transporting big inch pipe along a right-of-way. You can see a number of significant volumes of pipe already aligned along the right-of-way. That's what I mean by preconstruction. This will be an assembly. That's why you can complete construction on a project in a couple of years because you've got things ready to go.

One more video - here's the old version of welding pipe. Once again, from 50 or 75 years ago, if you look at this old truck on this side, you can see how ancient this video is but this is the way a lot of people think welding is done on a pipeline. That's no longer the case I can assure you. And you'll hopefully see in this video here the new mechanized welding. These are trained welders that operate this electronic equipment but we've done significant technological advances working with trade unions, as well as steel manufacturers as to how this can be done. And now you can see - this case happens to have a single welding torch head. We're now doing it with tandem multiple heads on the welding torch. It makes the project go faster and it's safer and you get a better weld.

SENATOR BUNDE asked if during the construction of the TransAlaska Pipeline, virtually no Alaskans were pipeline welders. He said his impression is that the pipefitters union is very tight and headquartered in the Lower 48. He questioned whether that is still the case.

MR. PALMER said he did not have an answer about the availability today but said that TransCanada would clearly prefer to retain local residents. That would be more efficient for the project. TransCanada believes that by identifying the labor needs now, Alaskans can begin to position themselves for those jobs.

SENATOR BUNDE commented that it is not only a matter of training, it would require the worker to get a [union] card, so that matter needs to be investigated further.

MR. PALMER agreed.

CO-CHAIR SAMUELS asked if, regarding the design work, TransCanada would be doing that work in-house or whether it might hire Alaskan firms.

MR. PALMER explained that TransCanada generally would do a project of this scale with a combination of in-house engineers and outsourced engineers, Alaskan and Canadian. TransCanada worked with VECO and Canadian engineering firms on its last project. He continued his presentation.

> Just to summarize - peak labor requirements of approximately 8,000. These are direct labor jobs on the pipeline. They do not include other labor provided by Alaskan businesses. No multiplier effects here. So they are not positions that engineering firms will have retained. They're not support services. They're not materials. The labor force estimates are preliminary until final design. I've described that to you. We would argue that training should commence once commercial agreements are in hand. The project phases, as I described, one year for pre-construction and two years for pipe and station construction and they cross over; they're concurrent.
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> That's all I had. Thank you.

SENATOR ELTON asked Mr. Palmer if he sees training as TransCanada's role or a role for other entities.

MR. PALMER said he generally sees that as a role for other entities, such as community colleges, industry, and unions. However, TransCanada has been involved in training programs in an advisory position in the past and understands how that training should occur.

SENATOR ELTON asked if TransCanada has helped to fund training programs in the past.

MR. PALMER said it has on occasion. He noted that federal money will be forthcoming to assist Alaska in job training.