

Stranded Gas Hearings (0409021130 Minutes)

Social and Economic Impacts of a Highway Route Gas Pipeline

Brian Rogers, Information Insights Inc., September 2, 2004.

MR. BRIAN ROGERS, principal consultant, Information Insights, Inc., said his report is really a work in progress. Information Insights was contracted by the MAG to look at the social and economic impacts of the gas pipeline, both construction and operations with a real focus on what it does for local governments, to look at the revenue impacts to municipalities under the Stranded Gas Act and to look at subsistence and cultural impacts to villages and local governments as part of gas pipeline construction. His focus is on the producer's application only and, to date, on just the gas pipeline portion, not the gas treatment plant or the upstream facilities or any in-state spur lines.

As some background, just thinking about the TransAlaska Pipeline System (TAPS), the TAPS was a far larger project in its impact on Alaska - if escalating those costs over today - larger than the total cost of the entire line and almost four times the size of the Alaska segment and that impact is placed on an economy where the population is doubled and it's a far more robust economy than we had in the early '70s.

However, TAPS gives us some ideas as to what the impacts are likely to be. Looking at the pipeline corridor under TAPS, affecting the North Slope Borough, the North Star Borough, the Interior villages and Valdez, the impact on schools was lower than most expected. The workforce development was late in starting - very little effect. On public safety - very significant impacts - high staffing turnovers. As staff went to work for the pipeline construction, wages skyrocketed - municipal wages up 40 percent over a two-year period. Some increases in criminal activity, basically indexed pretty much to populations increases. Huge increases in road usage, both from the population and from the project and those road usages weren't just on the primary industrial routes. In the health care - significant issues for the private sector - very little in the public sector for health care. Real improvements in health care availability occurred during that period. Acute housing shortages, particularly in Fairbanks and Delta, Valdez, right along the pipeline corridor - utilities were way overburdened. I expect Senator Seekins remembers the comment by the municipal utility system in Fairbanks in 1974 when they said they ran out of telephone numbers and it would be two years before they could get any new ones ready. It was just a way overburdened system.

Over the three years, household income went up almost 60 percent; there were cost of living increases as well over that period of time and population impacts significant throughout the corridor. Delta Junction's population up by over 25 percent, Valdez - 76 percent increase, the Fairbanks North Star Borough - relatively low at 15 percent. Most of that focused in the city. The City of Fairbanks went up by 75 percent over that period.

But the impacts were felt outside the pipeline corridor. In Southcentral Alaska, you saw the Kenai population go up by a third over that period of time - Anchorage population up by 15 percent. There were significant transportation challenges during the TAPS construction that affected areas throughout the state. This timeline is looking at 1973 - 1977. There was even more impact post-construction. If you look at cumulative impacts of oil and gas production, the big impacts happened once the state started spending money it was receiving once the line was completed and we saw the oil price increase of 1979. That '79, '80, '81 period had even more impacts, particularly on education, but also on a lot of the other municipal services and state services.

Looking at the gas pipeline as we've looked at the socio-economic impacts, we're focusing right now on what are the issues relative to population growth, what requirements are there for workforce development, how does it affect municipal and state infrastructure, what are the impacts on law enforcement and emergency services, impacts on education - although we expect those to be fairly light, health and human services and some other municipal impacts. Our

study is based on the application data from the producers, which looks at construction costs, schedule, logistics, workforce and materials shipment and the infrastructure requirements that the producers have laid out. However, there is certain information that just isn't there in their conceptual model – where certain construction and support activities take place, where they would spend by community, which really causes the impacts on the communities, or a hard timeline. The starting date in their application depends on action at the state and federal level.

We've had some challenges with the impacts of confidentiality. We have had access to confidential data and we cannot release any of that confidential data, but some of that drives some key assumptions – things like where is the freight movement, what's the construction process, where are the camps and when are they operating and what are the costs of some of the components. We've used those to build our economic model, but those underlying assumptions - so far many of them are confidential ... we're trying to make the model more transparent.... We can estimate some of the regional impacts, but can't talk very much about exactly where those occur, because it might allow somebody to sort of reverse engineer what the confidential data would be.

This project schedule is one that was contained in the producers' application, however, I've added years to it - that is if we assume that the governmental frameworks were in place by the end of 2004, when do the activities take place....

[He then explained the chart.]

Permitting completed by 2008, procurement for the project beginning in '09 and preconstruction activities beginning in 2009 with full construction starting in 2010 and going through 2013, the actual delivery of gas at the beginning of 2014. This is based on their conceptual model without any changes based on their 2001 study. There may have been changes in their thinking since then, but that isn't available as part of their application.

Based on what information we have and looking at population impacts, we see about a 12,000 increase net to Alaska population over the three-year construction period. Some increases in services required by local governments for that population and that increased population and the other activities drives some other impacts in addition to population-induced impacts, which would be those that are wage inflation issues.

The net effect of the population based services throughout the Railbelt and the construction corridor and the areas that serve the construction, we've estimated at \$21 million in direct costs to local government over the preconstruction and construction period from those impacts that are population-driven.

The second general area is workforce. If we look at direct and indirect and induced on an annual basis, an increase of about 8,500 jobs with some very significant opportunities for local hire during the construction.

SENATOR HOFFMAN said a population increase of 12,000 seems low compared to TAPS impacts.

MR. ROGERS replied that it does intuitively feel low, but TAPS was far bigger as a project and there is a lot more opportunity for local hire and contracts, which means less in the way of new population coming in. If the local hire efforts don't materialize, the impacts and numbers would go up.

On the workforce, the seasonal factors and the long lead time that we have – if you look back at that schedule with preconstruction beginning in '09 – there's a lot of time to address workforce training between now and then to assist the industry in keeping the impacts of new population down and assist Alaskans in getting the primary benefits out of the construction process. We won't get all of the benefits obviously, but there will be some significant ones. Some local government costs in dealing with workforce development – primary activities here, though, we anticipate will be the industry, state and federal governments – and our focus is on the municipal

impacts.

To give a sense – one of the things that is available in the public data looks at the overall sequencing of the craft trades during construction and the conceptual model assumes peak workforce in the winter months – actually January through March – is the peak period line wide. If we look from Prudhoe to Alberta – we don't have the data that's exactly to Alaska, but looking at line-wide and taking a proportion and looking at what the impact would be if you added it to the current construction workforce.

This chart takes from the Department of Labor the construction employment in Alaska in 2003 and lays onto it the additional craft trade workforce that would be required during a typical year of construction. What you can see is there's an increase in the construction workforce in those winter months when there's a lot of unemployed Alaska construction workers who potentially could take advantage of many of those jobs. There's a second peak in the summer, which is a challenge, because that's right on top of our existing peak. This does not take into account any of the support activities. This isn't camp staff, contractor support, or any of the logistics materials moving. This is actually just the craft demand, but just looking at the proportion of it that is in those winter months and thinking about the structure of Alaska's existing construction, there are some great opportunities to use Alaskans for that and that then minimizes the need to import workers.

SENATOR LINCOLN said her concern is that outside workers are continuing to be imported for the existing pipeline rather than hiring Alaskans. Yesterday she heard that a contract can't state a percent of residents to be hired because it's illegal. She asked what he proposed to do to leverage the state's position to use state businesses and workforce.

MR. ROGERS replied that Information Insight's role is to develop specific policy level mitigating measures for that. There may be ways to set targets in the negotiations and have certain provisions take effect if those targets get reached. He was sure there would be other measures.

SENATOR LINCOLN asked if he had seen the hard numbers from the TAPS in terms of where we are today.

MR. ROGERS replied that he had looked at existing apprenticeship programs in Alaska today and how long it takes to complete by craft.

Most of them, if we start soon, we are in a position to graduate sufficient journey-level workers to address many of the crafts. There are some crafts for which the skill level is beyond a beginning journey level and we can't get there. There are several skills that just aren't out there. An example cited by the producers is the equipment that will be used to lower the pipe into the trench – that's equipment – they'll be using more equipment on this line than exists in the world today and two to three times as many operators for that size as there are out there today. So, there's got to be a major training effort. The question there is how much of that is going to be Alaska-trained and non-Alaska-trained.... If we train Alaskans for skills that are good for one project that won't be replicated, what do they do post-project? They have to look elsewhere to find work with their skill level. So, there's a balancing act there. We don't assume that 100 percent hire is going to be possible even if we had all the training funds in the world.

SENATOR ELTON observed that one of the impacts he saw from TAPS was that people were leaving jobs in other communities around the state for higher paid pipeline jobs and the communities had to import people to fill their jobs.

MR. ROGERS replied that economically speaking, the higher paying jobs would offset the entry-level jobs that would be created by people moving up.

SENATOR SEEKINS echoed Senator Elton's concern and said that local hire requirements can have a negative affect on his business in Fairbanks, because his people are recruited and he has to go out and find qualified people and train them.

MR. ROGERS answered that some of those things balance out. A more complete socio-economic study would have to address those impacts on the private sector. The seasonal chart indicates that income may flow to families in terms of a member being able to work year-round as opposed to just eight months.

REPRESENTATIVE GARA asked what kind of population increase he envisioned if the local hire efforts can't be controlled.

MR. ROGERS replied that he hadn't calculated those impacts, yet. A poor effort would require more recruitment and hiring from out of state, which might have a secondary impact. People could hear there are jobs and move here.

CHAIR SAMUELS remarked that another impact to the private industry is that wages for local businesses will have to go up.

MR. ROGERS replied that would happen, but he estimated that it would be far more moderate than during the oil pipeline construction, although Delta and Tok might have those hyper-numbers.

Transportation infrastructure is the single largest cost item. That has to do with the size and weight of the project loads that will be traveling on Alaska's transportation infrastructure. The volume of the direct traffic that's part of the project, as well as population induced traffic in the villages and off the main road system, issues of dust mitigation and the need for railroad improvements.

When you think about Alaska's infrastructure – the major routes for freight coming into the state – ports of Anchorage, Whittier, Valdez, Haines, Seward – we have the railroad, potentially Skagway all impacted during construction, barges into Prudhoe Bay, the Alaska Highway at the Canadian border – significant freight movements across all of these. In addition, potentially, Kenai, depending on competitive bidding for modules, Kenai and Anchorage numbers could vary significantly.

We've looked at the transportation maintenance needs affecting local governments and villages and estimated those maintenance needs at \$14 million over the period of construction. That's a very low number because the biggest challenge comes post construction in any rebuilding that needs to occur. We're still working on how to get at those numbers, but this portion really focuses on what's needed in a construction payment in lieu of taxes to assist local governments.

In addition, we've got some major state transportation infrastructure – a series of highways and bridges in the Port of Haines, totaling \$265 million. If all of that is federal aid available, that's \$26 million state appropriation toward those highways and they need to be in place by 2009. So, in order to get them in place by 2009, that's going to affect the state transportation improvement plan and the municipal impact of that is it pushes back some projects that people would like to see sooner rather than later to the extent that the state chooses to make this infrastructure available. The industry has said that these really deal with load factors – some bridges. There are a couple that are height factors on overpasses and this is a core level that has been publicly released. There may be other roads, bridges, highways, ports in addition to this that would require some enhancement prior to construction.

MR. ROGERS said for a sense of TAPS impact on road usage, he picked a small street closest to his office in Fairbanks called Wendell Street. The preconstruction rate was about 10,000 vehicles per day and peak construction rate was about 18,000 per day. There would be similar, but smaller, increases throughout Fairbanks, Delta and certain areas of Anchorage. Part of it is traffic diversion from the highways that have the industrial traffic and part of it is just population induced.

Law enforcement emergency services – we're basically dealing with crime, traffic, subsistence resource protection. We looked at both increased state trooper presence and local police and VPSO. In addition, increased use of emergency services for both paid and volunteer fire and ambulance departments. Assuming that a portion of this is troopers, \$20 million in costs to local

governments, \$4.5 million to the state. If the troopers aren't there, it will be a higher cost on local government and VPSO.

MR. ROGERS said the education increase is relatively minor. During the oil pipeline, for every 47 workers, there was one additional student. Increases in state funding as well as local contribution add up to \$13 million.

Health and human services are relatively low, about \$4 million. Health needs and emergencies are covered in the camps. About \$12 million in wage inflation is estimated to vary by community. Subsistence issues, including village liaisons, subsistence research and monitoring preconstruction and during construction, for a total of \$5 million.

MR. ROGERS said this all totals about \$125 million for the preconstruction and construction periods from 2007 to 2014. That compares to \$202 million that would be paid from property taxes. However the bulk of those taxes are paid in FY 2014 when construction is completed.

The challenge is that while the numbers are relatively comparable, if you exclude that amount after construction is completed, the municipal impacts hit before the tax impacts would be there and they hit differentially. The City of Fairbanks has no pipeline within city limits, but is one of the most impacted cities. So, a pure tax regime does not address the social and economic impacts. In addition, in the unorganized borough, there is not a way of addressing those needs today. Of those impacts, about \$84 million would be the municipals' share and \$41 million the state's share, which really is focused on the roads, education and on police.

There are some offsets to these municipals costs. New construction of property that won't be tax exempt – warehouses that aren't direct pipeline – that drives some new revenues to municipalities. It can be used as an offset. We've got a little more work to do to complete those offset numbers.

I'll run quickly through the subsistence impacts and socio-cultural. The issues there really have to do with how does a project impact the availability of resources, the access to those resources and competition for the resources. Federal law would require certain mitigation measures and some monitoring and enforcement of those impacts. In the North Slope, those impacts would have to do with access, competition and disturbance - some cumulative impacts. North Slope impacts will be greater than what we've cited here because this does not include a gas treatment plant or upstream facilities, also impacts in the northern Interior and upper Tanana villages in terms of competition for resources, harvest levels and some cultural resource issues in the Interior.

The activities that affect those have to do with new road construction, truck traffic, the activities around a construction camp, and those things that happen during development or during some of the upgrades required to our infrastructure.

In total – impacts on villages – wage, employment, changes of structure of villages during the period of construction with a shift in focus from subsistence activities. If the population that would have been out hunting this week are instead working for wage income, there's less resource to share with elders and others. We see some population shifts as occurred during TAPS and just as in the urban areas, some changes in the social fabric with effects of drugs and alcohol as there is more cash income.

Finally, some management and regulatory issues are out there. To close, our work is focused on the municipal impacts. We've just about finished the work on the gas pipeline portion, working on the gas treatment plant. Upstream, as other applications come in, their impacts may be different from those of the producers' pipeline. We'd possibly also be looking at those.... Our final report [is] due to the MAG at the end of September.

SENATOR LINCOLN referred to the population chart and asked him if he had considered the shifting population in-state.

MR. ROGERS replied that his model looks at net impacts in each region based on the producers' conceptual model and he couldn't be precise about the effect of additional regional movement.

