

Stranded Gas Hearings

(0508311406 Minutes)

Analysis of Project Viability with Vertical Components

Jeffrey Leitzinger, Ph.D., President, Econ One Research, Inc.

DR. LEITZINGER informed the committee that he would be discussing the analysis of project viability with vertical components, which begins on page 6-1. He explained that projects can be thought of as having two distinct components: an upstream component that involves the development and marketing of the resource and a midstream component that is the construction of a delivery system to take the resource to market. The fundamental question that Econ One has reviewed is in regard to what is required, as an economic matter, to make the development of a gasline project viable and economic. The aforementioned really starts as an upstream matter, but in light of the need for a pipeline the question becomes where to look.

The question of where to look, as addressed on page 6-3, becomes a question of what owners/producers must do to bring the gas to market and commercialize it. If the only way for the project to happen is for the producers to build the pipeline, then the pipeline itself becomes part of the cost to the owners of the reserve. The aforementioned is one in which the economics should be considered as an integrated project. However, Dr. Leitzinger said he didn't believe that's the situation with this project because today a regulated pipeline is viable as a stand-alone investment. Still, he acknowledged that the producers might want to pursue an integrated project, but that would only be the case if the project's economics are improved by the producers owning the pipeline as well. However, the aforementioned shouldn't drag the project down.

CHAIR THERRIault asked if the upstream economics are the sale price minus the transportation cost and whether any value is left to bring the resource to market.

DR. LEITZINGER indicated that Chair Therriault was correct. He clarified that when he discusses economics, he thinks of it as an investment project in which the value of the gas is the market [value] less the cost of getting it there. The question then becomes whether that return over time makes sense given the upstream investment necessary to bring that about. The aforementioned differs when one decides that the only way for this project to move forward is for the producers to build the pipeline, in which case part of the producers' investment and part of the evaluation of the economics would include the capital costs associated with having to build that line. Dr. Leitzinger said that with the clear indication that the pipeline is viable on a stand-alone basis it seems correct to think about whether it's viable to proceed based on the upstream economics. If the upstream economics are attractive, the project overall should be viable, he opined.

DR. LEITZINGER posed a situation in which the focus is on the upstream economics, which leads into the question of how one should consider the interface between the upstream costs and the transportation costs. He opined, pointing to history, that it's reasonable to suppose that regulated pipelines traditionally don't make for good gas merchants. Therefore, he didn't expect a circumstance in which the producers in the upstream would sell gas at the entry point to the pipeline. Instead, he expected that the owners of the upstream resource would pay for transportation and move that gas downstream to trading hubs such as Chicago. Given the current regulations, pipelines would typically follow a cost-of-service model, an allowed rate of return, and a lifetime pipeline tariff. He then opined, in relation to transfer prices, that upstream capacity commitments to pay for the fixed costs of the capacity will be necessary. In a situation in which the producers pay as they go for the use of the pipeline, the incremental costs of using the capacity may discourage continued gas marketing and interfere with the overall economics of the project. One of the risks the pipeline owners face when investing in a pipeline is whether the upstream producers will continue to bring gas to market. He reiterated the need to have capacity commitments.

DR. LEITZINGER turned to the meaning of capacity commitments in terms of the economics of the project [as discussed on page 6-5]. He clarified that a capacity commitment doesn't mean it becomes an

integrated projected. "To say that I make a capacity commitment to buy service from you as a pipeline over time is not the same thing as saying I own the pipeline," he further clarified. Capacity commitments are used frequently down South between owners and shippers of gas and regulated pipelines. Still, those remain separate companies and separate commercial transactions. Furthermore, a capacity commitment isn't the same as debt nor is it a consumer of the company's debt capacity. Moreover, capacity commitments aren't advances of capital. Capacity commitments, he explained, are contractual agreements over time to continue to pay to use the facility. Also, a capacity commitment doesn't mean that the borrowing capacity of upstream producers would be limited or reduced. Dr. Leitzinger specified that a capacity commitment does change expected cash flow and risk. If one agrees to a capacity commitment as a shipper, then that individual is committed to continue paying the cost, even in a world with very low prices. Therefore, a capacity commitment creates an effect on expected cash flow and increases the risk of the owner of the resource. However, both effects are small in the present context, he opined.

DR. LEITZINGER then turned attention to the graph on page 6-6, which illustrates that with a nominal Alberta price of \$8.00/mmBtu produces a netback of about 6.25. He explained that the prices on the graph include inflation. Therefore, a price in Alberta just over \$8.00 [/mmBtu] with a 2.5 percent inflation assumption is the same as the real price of \$5.00 [/mmBtu]. The graph on page 6-6 illustrates the economics without a capacity commitment. As long as the price in Alberta is more than \$1.75 [/mmBtu], there is margin to be made by moving the gas to Alberta. In a situation in which there are no capacity commitments, the project would shut down. The graph on page 6-7 illustrates that gas prices and netback with a capacity commitment stay the same for all the prices for \$1.75 [/mmBtu] and above. However, when prices are less than \$1.75 [/mmBtu] at Alberta, the netbacks are negative and the company would lose money. He highlighted that the graph shows that for the vast majority of the price cases, it's a positive netback and the presence of a shipping commitment has no effect. Even when one assumes that all of the prices on the graph are equally likely and there is a shipping commitment, the total expected value is only reduced by about 1 percent. However, not all the prices are equally possible. He then turned attention to the graph on page 6-8, which includes the earlier mentioned low price scenario and the expected price scenario. He opined that there is a very low probability of being in an environment in which the prices in Alberta are less than \$1.75 [/mmBtu] or that the shipping contract would have an adverse impact on economics. Therefore, the shipping commitment shouldn't be considered an adverse piece.

DR. LEITZINGER closed by relating some of the potential pitfalls, as specified on page 6-9. By any of the performance metrics, the performance associated with a gasoline project will be lower if the upstream and pipeline are integrated than if just looking at the upstream. The aforementioned is also the risk when the project is put together on an integrated basis. Dr. Leitzinger then informed the committee that "size does matter" because a lower return on a large project can be more attractive than a high return on a small project. Therefore, one needs to be sensitive to whether the projects are mixing businesses of different types as well as the size of the project. Alaska's project is big, even by world standards, he stressed. Therefore, he cautioned the committee to make rate-of-return comparisons for projects of like size and risk.

CHAIR THERRIault returned the committee's attention to the graph on page 6-8 and said:

Based on the price for transportation, which was developed this morning, at a \$1.75 [/mmBtu] and the likely price scenarios that were developed this morning and talking about blending the two projects or having the pipeline lower the expected rate of return, net present value, all of those things because you've got the component that is a regulated utility ... and a regulated rate of return on it. So, it pulls down the economic return, but it pulls down the risk too. You've also got the dynamic of if you got a company that's committed to capacity and you're down below a \$1.75 ... however, losing money on every ... quantity that they're shipping. They're offsetting that somewhat by the fact that they're at least getting the regulated rate of return or providing the shipping for moving the good. ... by blending the two you help with that potential downside.

DR. LEITZINGER agreed, and offered that if the upstream and the pipeline are put together, most of the investment dollars will be largely insensitive to price fluctuations. Therefore, it will generate a consistent rate of return consistent with the low risk. Furthermore, in an integrated sense the ownership of the

capacity, the obligation to pay, would create an area on the graph that would relate the return generated on the pipeline assets.