

**Report on the Meeting of the
Federal Energy Regulatory Commission
Conference on the State of Natural Gas Infrastructure
October 12, 2005
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On October 12th, I attended the Federal Energy Regulatory Commission (FERC) Conference on the State of Natural Gas Energy Infrastructure (“Conference”) on behalf of the Pipeline Safety Trust. The presenters discussed four topics:

- 1) Short-term Price Effects of Recent Hurricanes
- 2) Katrina, Rita and the Winter Beyond
- 3) State of the Pipeline Industry
- 4) Future of the Pipeline Industry

This report gives a brief overview and then discusses some of the questions raised by the conference. For those wanting more detail, the transcript and some of the presentations are available at

<http://www.ferc.gov/EventCalendar/EventDetails.aspx?ID=2181&CalType=%20&Date=10%2f12%2f2005&CalendarID=0>.

Natural Gas Prices, Hurricanes and Winter Weather

This was by far the most interesting and fact-filled aspect of the conference. Speakers gave background on summer natural gas prices and explained the effects of the hurricanes and their expected impact on consumers this winter.

Even before the hurricane season began, natural gas prices were at the center of a perfect storm. The months of June through September were the hottest on record; elevated temperatures drove air conditioning demand which drove electricity demand. Over the last few years, natural gas has been the fuel of choice for utilities building new electric generating stations. As a result, the higher electricity demand led to higher natural gas demand and that led to higher natural gas prices. Meanwhile, worldwide demand (and prices) for oil had been climbing; since natural gas prices and oil prices move together, higher oil prices were also boosting natural gas prices.

The booming demand could not be sated by an increase in supply because our sources of natural gas are not quickly expandable. Eighty-five percent of the natural gas we use is produced here in the United States. Overall U.S. production is declining, so meaningful additional supply won't come from our own production. Canada has a wealth of natural gas but due to Canada's demand for its own gas, the pipelines that bring that gas from Canada generally operate at less than 75% capacity. Liquefied natural gas (“LNG”) plants have some excess capacity but US companies buy LNG on the spot market (not under long term contracts) and have recently lost out to other countries (notably Korea, Spain and Britain) willing to pay even higher prices.

Tight supply and strong demand were already pushing natural gas prices into uncharted territory. Then Katrina and Rita blew right into the Gulf Coast, a sweet spot of United States gas supply and production. A week before the storms, companies began evacuating their off shore oil platforms, shutting in production. These platforms have anchors the size of M-1 tanks, but the winds tossed them around like toys, dragging those anchors across the ocean floor and damaging pipelines connecting platforms to onshore gas processing plants. Assessing and repairing that damage will take time.

Onshore gas processing facilities had their own problems. Gas from the Gulf Coast requires processing because it contains high amounts of natural gas liquids. But two-thirds of onshore plants have been damaged. Rebuilding those plants will take time.

The bottom line is that about 2+ billion cubic feet (“bcf”) per day of Gulf Coast natural gas production will be off line for the winter. To put that in perspective, US winter demand is about 73 bcf per day. That comes from three sources—production, imports and storage. Production and imports total to 60 bcf per day. Thus, we need 13 bcf per day from storage, or a total of 1920 bcf in storage to make it through the winter, assuming a normal winter. The industry believes it will be able to put a total of 3100 bcf in storage before winter begins in earnest, so the country should be in good shape from a supply perspective provided the winter is not worse than expected.

But natural gas prices will be much higher than last year driven by three factors. The strongest driver is oil prices. Since worldwide demand is driving oil prices, that is largely out of our control. The second strongest driver is electric generation demand for natural gas. The third driver is the loss of production from the hurricanes. The wildcard is the winter weather. If we get a particularly cold winter, it will drive both electricity and natural gas demand and prices could be even higher than expected.

The FERC Commissioners noted that FERC was tracking natural gas prices and would not hesitate to open investigations if there is any indication of market manipulation. Commissioner Brownell noted that FERC had made several changes so that it wouldn't be in the position that it was in when the California energy crisis hit and FERC didn't know what was going on.

Commissioner Kelly noted that public information about which facilities are damaged and how repairs are progressing would help moderate prices because it would prevent speculation based on unfounded rumors about the repair status of facilities.

What Changes Did Speakers Request to Improve Natural Gas Infrastructure?

Various speakers asked for changes to laws or regulations to improve their ability to provide natural gas. These proposals might eventually lead to changes that improve or hamper pipeline safety.

Enbridge asked for waiver of local, state and federal regulations to expedite repairs. Over the long term, the company supports more cooperation among governments to improve levies and perform marshland restoration.

Several speakers supported more diversification in natural gas supply sources from both LNG and the proposed Alaska natural gas pipeline. Duke suggested that FERC should encourage distributed LNG facilities. Otherwise, too much LNG in one place would overwhelm the pipeline grid for take-away capacity. Electric generators have noted problems with LNG gas quality.

ENSTOR pointed out that US storage inventories at the end of last winter were higher than usual and that cushion has lessened the hurricane impact because less new storage was needed. ENSTOR urged FERC to expand natural gas storage infrastructure because a cushion wouldn't always be available. Kinder Morgan also argued for additional storage and asked for market based rates for gas from storage.

Several speakers noted that public utility commissions have been discouraging companies from buying long term supply contracts. As a result, companies have to purchase natural gas supply at whatever price the market will bear. Studies have suggested that long term contracts should be encouraged and utility commissions should minimize second guessing and hindsight based regulation. Short term contracts were cited as an impediment to financing LNG facilities because they increase investors' risks.

El Paso complained that Native Americans' "hugely inflated cash demands" presented a threat to its ability to operate and expand its infrastructure. The company said that it was able to acquire 95% of its needed rights-of-way at or near market value on non-Native American land. But the company has recently been seeing demands from Native Americans at 50 to 100 times market value. El Paso noted that Congress required the Secretaries of Energy and Interior to study this problem in § 1813 of the Energy Policy Act of 2005. El Paso argued that FERC should have jurisdiction to impose eminent domain on Native American lands.

Kinder Morgan pointed out that the present pipeline grid is problematic as our supply sources change from Gulf Coast based to the Rockies and LNG. The company asked for more flexibility in FERC tariff rules to enhance pipeline development in areas where the grid needs expansion as a result of new supply sources.

Standard and Poor ("S&P") reported that it may downgrade the credit quality of pipeline companies based on the owner. S&P has been seeing many joint ventures that insulate projects from the financial condition of their owners. However, S&P prefers to see companies operated by an owner that has a long term interest in the industry, rather than financial owners because an owner with a long term interest will treat its assets better than one with a more short term focus.

Questions Raised by the Conference

With regard to explaining the pricing of natural gas and the impact of the two hurricanes on future pricing and supply, the conference was excellent. But it failed to meaningfully explain the state of natural gas infrastructure or explain why changes were needed. For example, you might think a conference with this topic would begin with maps of national infrastructure, a comparison with natural gas demand and supply by region and an overview where infrastructure was inadequate—no such information was offered or discussed.

Chairman Kelliher opened the conference by noting that no Gulf based LNG facility had failed as a result of the hurricanes and said that this proved that LNG regulations were adequate. The fact that LNG facilities didn't fail in the face of a hurricane no more proves the adequacy of LNG regulations, than the fact that pipelines failed in the face of hurricanes proves pipeline safety regulations are inadequate. The two concepts are only distantly related. The Chairman's sweeping statement suggested spin rather than analysis and I turned up the sensitivity on my bias detectors.

I was not disappointed. The most important disconnect I noted between the conference and its ostensible focus on infrastructure, was the connection between worldwide demand and energy prices. If the most important driver of energy prices is international demand, what good does expanding our infrastructure do? I can see some need for "re-directed" infrastructure as supply sources change, but the focus seemed to be on "more" infrastructure.

Notably lacking was any focus on conservation. If we are competing with other countries for a scarce resource, it would seem that it would be in our national interest to use what we get efficiently. Scientific American published a special issue devoted to energy in September. It reported that switching all U.S. incandescent bulbs to compact fluorescents would reduce national electricity consumption by 5% according to the EPA. If our natural gas prices are driven by natural gas fired electricity and gas prices are likely to stay high due to strong worldwide demand, why would we want to be wasting 5% of electricity produced with a scarce and expensive resource? And how many other simple conservation ideas are there like this one? If EPA has ideas like this, why didn't they speak at the conference? Wouldn't conservation reduce the need for more infrastructure?

And, as long as speakers were arguing for diversity of supply with distributed LNG facilities, where were the voices for distributed supply of less traditional forms of energy such as solar or wind? Wouldn't expansion of those sources mitigate the need for expanded natural gas

infrastructure and reduce our dependence on energy from unstable areas of the world? Yet there was no assessment of alternative energy as a solution to the “problem” the conference nominally addressed.

Another serious gap in the conference structure was the lack of voices arguing against additional infrastructure. New England politicians came in for criticism for resisting LNG and pipeline proposals. Were they invited to explain their positions at the conference? It’s easy to criticize someone’s ideas when they aren’t there to defend them. I found it improbable that politicians would prefer to see themselves and their constituents freeze in the dark during a cold New England winter. The lack of their voices detracted from the persuasiveness of the conference and made it look like an exercise in preaching to the choir rather than evaluating the state of natural gas infrastructure.

There was supposed to be a session at the end where the attendees were invited to ask questions. The conference ran late and FERC quickly closed the session after only one question. I wished there had been more time for questions. I wish there had been broader dialogue on natural gas infrastructure. I wish there would be a conference like this one but with voices on both sides of the issues so that one might better appreciate the complexities. Unfortunately, this conference wasn’t it but perhaps this suggests something that the Pipeline Safety Trust might seek grant funding to present.