MOODY'S
INVESTORS SERVICE

Pipeline Safety Costs Rising As Alternative Rate Designs Sought

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Summary

Pipeline safety investments are rising as the US gas pipeline infrastructure ages and more stringent regulations are implemented. A string of high profile pipeline accidents has raised public awareness of its importance.

Moody's recently conducted a survey of its rated local gas distribution utilities (LDCs, or gas utilities) and interstate gas pipelines (transmission companies) on their pipeline integrity plans to gauge the potential credit impact from stricter safety mandates. In this Special Comment, Moody's highlights our findings including:

» Moody's does not expect that new safety costs will undermine the credit quality of gas utilities and pipelines so long as they obtain predictable and timely recovery of those costs.

» Pipeline integrity spending will increase, but the respondents appeared well along in complying with existing rules and did not expect having to increase their spending dramatically over the next few years.

» The new federal pipeline safety law that was passed in January will result in increased costs, but new rules would not be imposed for a few years, and the related costs are likely to be spread over many years, diluting the financial impact on gas companies.

» The poll indicted a wide range of costs to renovate pipeline systems. Costs will be higher for those that have a lot of older infrastructure or higher risk infrastructure; for those that serve urban areas or difficult to access terrain.

» An increasing array of accelerated cost recovery mechanisms in various state jurisdictions is helping to support the credit qualities of gas utilities. On the other hand, interstate gas pipelines lack such favorable rate designs, while their future safety costs are likely to be more expensive under the latest federal safety legislation.

» Corporate governance is a key ingredient to safe pipeline operations, yet its importance is not typically borne out in executive incentive programs. The capital allocation conflict between pipeline integrity expenditures and shareholder growth is likely to be marked more for master limited partnerships and other such companies that focus on maximizing dividend payouts which could be to the detriment of maintenance spending.

Incremental Costs From Pipeline Safety Regulations Yet Unknown, But Long Implementation Likely to Mitigate Financial Risk

In January 2012, the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (the 2011 Act) was signed into law. The latest reauthorization was delayed by over a year due to increased scrutiny after a series of catastrophic incidents that occurred between 2010 and 2011, such as the BP oil spill in the Gulf of Mexico (April 2010), Enbridge's oil pipeline rupture in Marshall, Michigan (July 2010), PG&E's natural gas pipeline explosion in San Bruno, California (September 2010), and UGI Utilities' cast iron main break in Allentown, Pennsylvania (February 2011).

The 2011 Act is an iteration of previous pipeline safety laws, but some provisions were tightened and others were added to address concerns that were raised by the recent incidents. For example, the legislation raised civil penalties for non-compliance. Other significant new mandates, which will mostly affect gas transmission lines, include:

» the installation of automatic or remote-controlled shut-off valves in new or entirely replaced transmission lines;

» the verification of the maximum operating pressure for transmission lines in densely populated locations and High Consequence Areas (environmentally or otherwise sensitive areas) and assessing the wall strength of previously untested pipes that operate in those areas at high stress levels. This provision eliminated a previous grandfathering clause that had exempted transmission lines installed before 1970 (about 60%[1] of on-shore natural gas transmission pipes in the U.S.) from having to be tested for defects.

Incremental costs as a result of the 2011 Act cannot yet be estimated accurately, since the legislation first requires the Pipeline and Hazardous Materials Safety Administration (PHMSA, the pipeline safety agency under the US Department of Transportation) to complete numerous feasibility studies over the next 1 to 2 years before formulating and implementing specific rules to comply with this law. Pipelines will thus be afforded a few years' lead time[2] to prepare for the additional operating expense and capital investment, including ascertaining the recovery of those costs. The financial impact of any incremental costs from the 2011 Act should be diluted as they will likely be spread over many years, judging by the gradual roll-out of previous rules.

The range of incremental costs from the 2011 Act could vary by the ultimate rules governing such new provisions as the installation of the above-mentioned shut-off valves, and where and at what intervals they will be required to be installed. Additionally, transmission companies are now verifying records of pre-1970 pipe in densely populated and High Consequence Areas, and those lines found to be with insufficient records and operating at high stress levels will eventually need to be tested at some expense. Depending on the final rules, transmission companies may perform hydrostatic testing, which is an expensive method because it entails taking a line temporarily out of service, or in-line inspection (pigging), which could first require investment in new facilities to accommodate the pigging tools.

1 Interstate Natural Gas Association of America (INGAA) Response to Advance Notice of Proposed Rulemaking on Safety of Gas Transmission Pipelines, Docket No. PHSMA-2011-0023, January 20, 2012

2 For example, as a result of the 2006 pipeline safety act, PHMSA published its final rules on integrity management requirements for LDCs, which became effective in 2010, and which began to be implemented in 2011. For interstate gas transmission companies, similar gas integrity management rules, which became effective in 2004, required pipelines to complete baseline assessments over a ten-year period, which ends in year-end 2012.

Moody's Survey: Incremental Increase Expected on Wide Range of Cost Estimates

Moody's recently surveyed its rated companies that combined own more than a third of the distribution and transmission pipelines in the US on their pipeline integrity plans to gauge the potential credit impact from the related costs. The respondents' pipeline integrity budgets, based on current rules, appear manageable, and more importantly, the companies have some form of recovery mechanism to recoup these costs. The companies expect to spend more, but incrementally, on their pipeline safety programs, as they have now been implementing successively more stringent federal pipeline safety regulations since they were first passed in 1970. On average, these companies expect to replace about 5% of their pipeline miles over the next 10 years which would increase their annual capital budgets by about 8% over 2011 levels.

On pipeline replacement alone, the median cost per mile was about $600,000 among survey respondents, but answers varied widely. Costs will be higher for those thatwith older infrastructure, particularly any that pre-dates the introduction of federal safety regulations in 1970, or higher risk infrastructure such as cast iron pipelines. Such older pipes are more prevalent in the Northeast, the Midwest, and the oil patch where the natural gas industry has a longer history than in the Southeast or the West. Those serving urban areas or difficult-to-access terrain, such as water crossings, will also face higher replacement costs.

Transmission pipeline owners are more likely to see safety costs increase as the significant new mandates under the 2011 Act relate to transmission lines. Transmission pipes have a wider diameter, handle higher pressures, and could cost well more than double the cost of distribution pipes. In addition to replacing pipes, companies may incur additional costs for new valves, testing, and other facilities needed to modernize their systems.

While the rules related to the 2011 Act have not yet been promulgated and the costs related to it are not possible to estimate with any accuracy, some respondents estimated that the incremental costs to their individual companies would total in the range of hundreds of millions of dollars.

By contrast, two companies so far have announced billion-dollar programs to upgrade their transmission systems. Pacific Gas and Electric Company (A3 sr. uns.) is pursuing a $2.2 billion pipeline safety program, which will entail spending over $600 million annually[3] (roughly 15% of 2011 capital expenditures) for the next few years, while NiSource Inc. (Baa3 sr. uns.) plans to spend about $300 to $400 million a year (roughly 30% of 2011 capital expenditures) over the next 10 to 15 years on its $4 billion program.

Infrastructure Trackers Proliferate for Utilities, Yet to Be Seen for Pipes

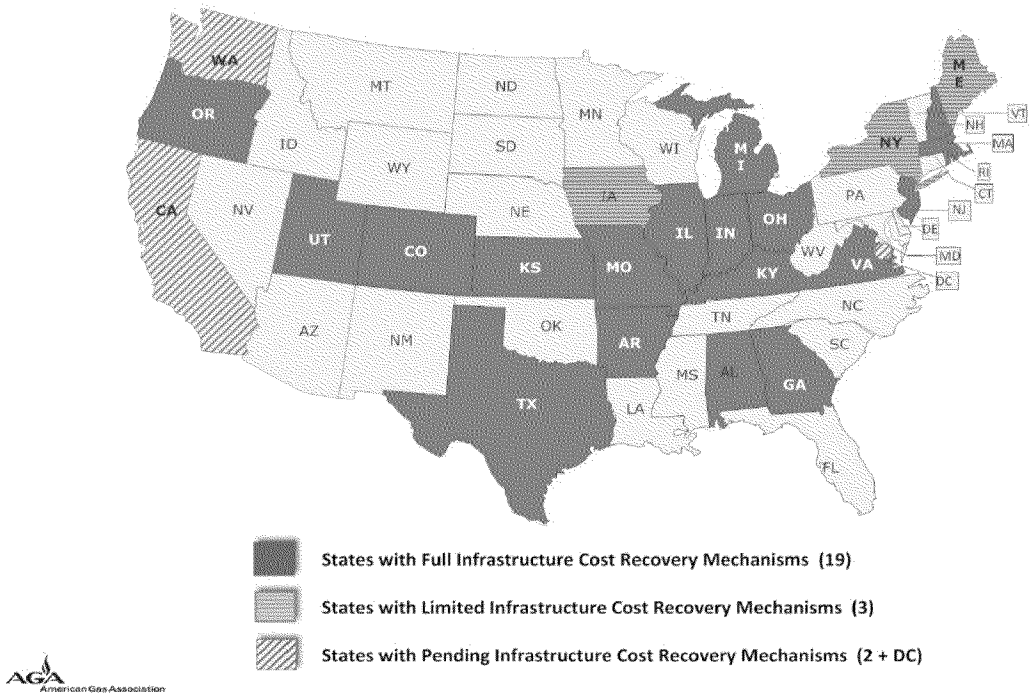
Our credit-neutral assessment of pipeline safety costs is based on the companies obtaining sufficient and timely recovery of such costs from regulators at the state (in case of distribution pipes) and federal (in case of interstate transmission pipes) levels. We would expect safety-related expenditures to be recoverable as mandated costs of doing business.

Utilities, which are regulated by state commissions, have traditionally recovered such costs as part of their base rates. In a growing number of states, however, full or partial infrastructure tracker mechanisms are being granted, allowing costs to be recovered more quickly than through a base rate case filing. As of March 2012, such trackers were available in 22 states For these states, these

[3] Including expenses and capital expenditures.

mechanisms have been touted as a job creation initiative, while for the utilities, they have been a way to add to rate base, and consequently revenues, for a mature business, for which margins have long been on a flat to declining trend.

FIGURE 1
States With Infrastructure Cost Recovery Mechanisms as of March 2012



Source: American Gas Association

Some survey respondents are going over and beyond the minimum federal and state safety requirements on their own initiative. This strategy to accelerate safety spending is usually motivated by the availability of such infrastructure trackers. For example, utilities are choosing to spend more and sooner in those state jurisdictions where such trackers are available rather than in jurisdictions requiring such investments to be recovered in a costly and time-consuming base rate case proceeding.

At the federal level, the Federal Energy Regulatory Commission (FERC), which regulates interstate transmission pipelines, continues to provide for recovery of safety-related costs through traditional base rates. Since the FERC has generally not granted trackers, we will be watching how successful pipelines will be in getting adequate and timely recovery of their rising safety costs. This is particularly important for transmission companies, as their incremental costs under the 2011 Act will be far higher than for the LDCs. We expect pipelines will negotiate reasonable plans with their key constituencies (including regulators and customers) to mitigate any credit impact from such incremental costs.

First in that development is NiSource, which recently began negotiating a tracking mechanism with its pipeline customers to help foot the costs related to its above mentioned upgrade program. If the company is unable to negotiate an acceptable mechanism, it will resort to seeking recovery through the traditional base rate case process.

Most pipeline revenues are underpinned by private contracts with customers, as opposed to a utility whose revenues are determined by regulated rates. Some negotiated contracts could also preclude a pipeline from charging incremental fees to help cover new safety costs. Lacking a regulated monopoly

position as utilities do, other pipelines may be reluctant to raise rates to cover such higher costs if such a move would put them at a disadvantage to their competitors.

Tone at the Top: Importance of Corporate Governance in Pipeline Safety

Corporate governance is a key ingredient to pipeline integrity. A major pipeline failure, and the heavy reputational and financial costs associated with it, is a requisite scenario in a gas company's risk management program. The price paid for such a disaster is illustrated by the San Bruno incident, which the National Transportation Standards Board (NTSB, a federal safety investigation agency) called an "organizational accident…that requires complex organizational changes to avoid them in the future."

Case Study: Natural Gas Pipeline Explosion in San Bruno, CA

In September 2010, a segment of an intrastate natural gas transmission pipeline that was owned by Pacific Gas and Electric Company (PG&E. A3 senior unsecured) ruptured in San Bruno, California, killing eight people and causing heavy property damage. This incident became a catalyst for more stringent pipeline safety regulation and has left a financial and credibility risk for both the company and the industry.

The NTSB report on this incident was highly critical of PG&E's management from a quality assurance, quality control, and pipeline integrity standpoint, citing deficiencies in the company's integrity management program. The NTSB report also criticized the weak oversight from the California Public Utilities Commission (CPUC) and by the Department of Transportation.

Although Moody's affirmed PG&E's ratings in the aftermath, San Bruno will remain an overhang on the company's credit for some time, including a $2.2 billion multi-year Pipeline Safety Enhancement Plan, material fines, and various ongoing investigations by the CPUC. Qualitatively, the incident has damaged the firm's brand as well as credibility across its key constituencies, and resulted in appointments of new senior management.

The accident also has caused some collateral damage for other California utilities as well as for the gas industry in general. For example, the CPUC is developing more rigorous safety standards which will increase costs for all utilities in the state. San Bruno has become a catch phrase for pipeline accidents, used by opponents of pipeline projects being pursued by other companies.

As it relates to capital allocation decisions within a gas company, pipeline integrity expenditures could be deemphasized against those that generate shareholder growth. Getting sufficient funds for integrity projects may be difficult, since the cost-benefit from such preventive measures is hard to quantify. A sufficient budget and organizational resources for leak prevention, for example, may not be granted if the board and senior management lack the operational background to make such a determination. This conflict is likely to be marked more for master limited partnerships and other such companies with financial strategies that focus on maximizing dividend payouts which could be to the detriment of maintenance spending.

In PG&E's 2011 proxy statement, we have seen some language on public safety and emergency response time added to operational performance measures for management. Although companies routinely tout safety as a core principle, its importance is not borne out in most executive compensation measures, which are predominated by earnings growth metrics with little weight on pipeline safety and integrity targets beyond the usual employee and operational safety statistics.

Moody's Related Research

Industry Outlook:

» US Regulated electric and Gas Utilities: Stable Despite Rising Headline Rhetoric, January 2012 (137878)

Special Comments:

» Low Natural Gas Prices Herald Long-Term Changes in US Energy Infrastructure, April 2012 (140797)

» Oil and Natural Gas: High Prices to Keep Oil Production Brisk in 2012, Helping Midstream and OFS Sectors, January 2012 (138669)

» U.S. Natural Gas Transportation: Low Prices Pose Little Trouble for Midwest Natural Gas Companies, (133445)

Rating Methodologies:

» Regulated Electric and Gas Utilities, August 2011 (118481)

» Natural Gas Pipeline, December 2009 (121678)

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