

# Infrastructure Investment in the Gas Industry

Overview and Recent Developments  
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# Overview

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- ◆ After a prolonged period of relatively limited new investment, gas utilities have begun to invest more in new plants over the last five years
  - According to the American Gas Association (AGA), at least \$100 billion of new investments will be required over the next 20 years
    - Demand is expected to grow in the U.S. by 50-60% during this period
  - While planned spending for many utilities is expected to be flat from 2010-2012 due to recession-related cutbacks, some LDCs plan for increased spending over this period (e.g., 1-2% CAGR)
- ◆ Many LDCs are focused on replacing cast iron and bare steel
  - Replacing older pipe with materials such as plastic and cathodically-protected steel has the following benefits:
    - Increased safety and reliability due to a reduction in leaks
    - Lessened environmental impact, also due to a reduction in leaks (i.e., methane emissions)
    - Potential higher operating pressures which support growth of the distribution system
  - By improving pipeline safety, these improvements also support the Pipeline and Hazardous Materials Safety Administration's new rule regarding distribution integrity management programs (DIMP) for LDCs and other gas operators
    - Under this rule, operators are required to identify pipeline threats (e.g., leaks), analyze the associated risks, and mitigate the applicable threats and integrity concerns

# Overview (Cont'd)

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- ◆ The industry will also need to expand the infrastructure (e.g., storage systems, transmission and distribution pipelines) that delivers gas from production areas to end user markets
  - Interstate pipeline companies will need to add 38,000 miles to the existing 270,000 miles of pipe
    - In North America, 36 projects are either under construction or in the design phase; an additional 51 projects have been announced
    - Many of these pipelines will deliver gas from unconventional production areas, such as shale basins, tight sands, and coal seams
  - Many companies have either begun or planned storage projects (41 announced, 38 either under construction or in the design phase)
  - To increase the import capacity of LNG, many terminals have been planned, approved, or have begun construction
    - Four terminals are under construction while an additional 17 have been approved for construction (as of September 2010). An additional five have been proposed
  - Local natural gas distribution companies (LDCs) will need to add over 250,000 more miles of distribution pipelines to the 952,000 miles that exist today

# Overview (Cont'd)

Many infrastructure activities and projects are either underway or planned. Below are some examples:

Company	State	Date	Comments
Infrastructure Filing – New Jersey Natural Gas	NJ	10/10	<ul style="list-style-type: none"> <li>◆ New Jersey Natural Gas submitted a filing with New Jersey's Board of Public Utilities (BPU) to extend its Accelerated Infrastructure Program for an additional year</li> <li>◆ The program expedites the completion of various replacement, reinforcement, and expansion projects</li> <li>◆ Proposed spending is over \$50 million and would "support the continued economic development and job growth in the state as well as ensure the reliability and integrity of the company's delivery system." according to the company</li> </ul>
Gas System Upgrade – National Grid	MA	9/10	<ul style="list-style-type: none"> <li>◆ National Grid completed the first phase of an upgrade program that includes \$220 million of investments in gas mains through March 2011</li> </ul>
Storage Project – Central Valley Gas Storage	CA	10/10	<ul style="list-style-type: none"> <li>◆ Central Valley Gas Storage, a subsidiary of Nicor, received approval from the California Public Utilities Commission for the construction and operation of a gas storage facility that will serve Pacific Gas and Electric's transmission system</li> <li>◆ The facility, which will include a gas reservoir and interconnect point, is designed to provide access to West Coast natural gas and power markets</li> <li>◆ Construction is scheduled to be completed by the end of 2011</li> </ul>
Various Projects – AGL Resources	Multi	'09,'10	<ul style="list-style-type: none"> <li>◆ AGL's Georgia utility, Atlanta Gas Light, has begun a multi-year upgrade to improve system reliability, called Strategic Infrastructure Development and Enhancement Program (STRIDE). Costs for the program will be recovered through a surcharge approved by the Georgia PSC</li> <li>◆ AGL recently completed two large regulated pipeline projects – the Hampton Roads Crossing project in Virginia and the Magnolia pipeline project in Georgia</li> <li>◆ AGL's unregulated business has substantial gas storage infrastructure projects under way, including the Golden Triangle Storage facility in the Gulf Coast region of Texas (estimated cost is \$314 million) and a longer-term planned expansion of the Jefferson Island storage facility in Louisiana</li> <li>◆ AGL and El Paso Corporation have formed a joint venture (Southeast LNG Distribution Company) that will distribute LNG to the heavy-duty transportation market and peak-shaving facilities across the southeastern United States</li> </ul>
Pipeline Project – Rockies Express Pipeline	Multi	11/09	<ul style="list-style-type: none"> <li>◆ This nearly \$6 billion interstate pipeline project, spanning 1,700 miles from Colorado to Ohio, is the largest natural gas pipeline in North America</li> <li>◆ The pipeline links natural gas supplies in the Rocky Mountains to markets in the upper Midwest and East</li> </ul>
Regulatory Legislation – Pennsylvania LDCs	PA	4/09	<ul style="list-style-type: none"> <li>◆ Proposed legislation would allow PA LDCs to levy a distribution system improvement charge to fund replacement of unprotected bare steel or cast iron pipelines. This legislation is supported by the PA PUC</li> </ul>

Sources: SNL, RRA

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# Financial Community's Perspective

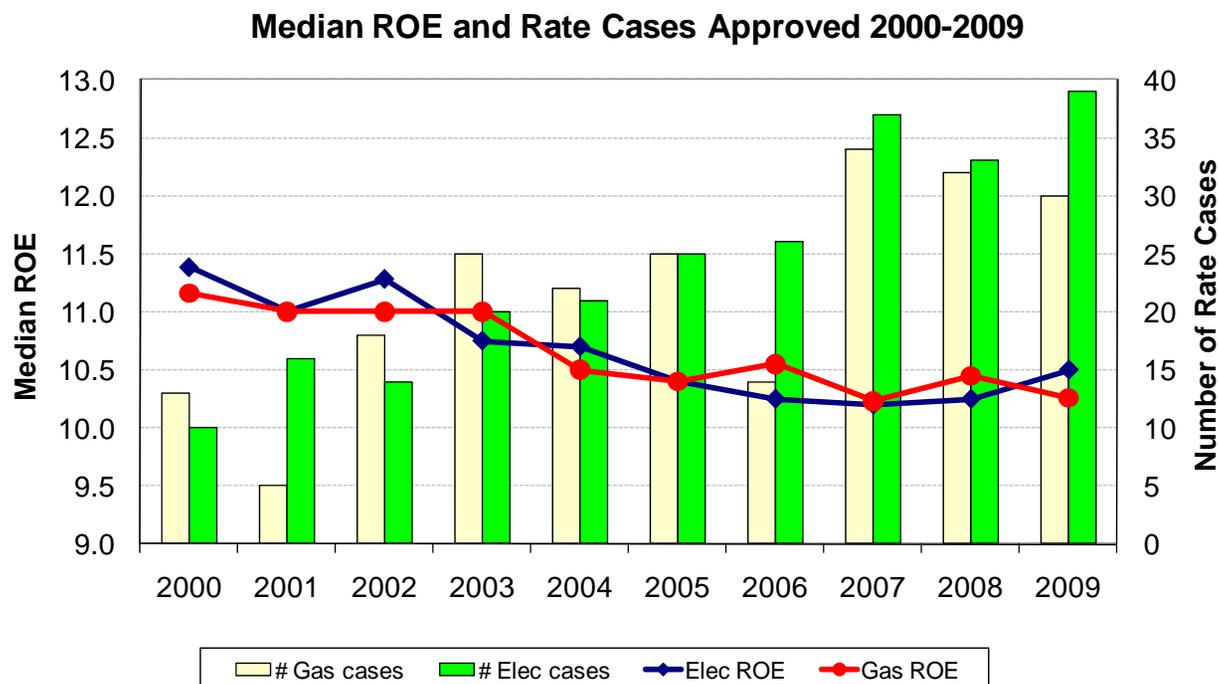
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- ◆ The recent economic downturn impacted the ability of companies to access capital and increased the cost of capital
  - The key question for the energy industry is how much of planned capital spending will not occur as a result of the current financial environment
- ◆ Primary factors that are pressuring utilities include flat (or even declining) customer growth, rising bad debt expenses, underfunded pension plans, and increasing materials costs
- ◆ However, credit rating agencies believe gas utilities are better positioned than other energy companies
  - LDCs' future capital requirements are more manageable and certain than those of electric utilities and pipelines
  - The gas utility sector's long history of dividend payments makes it attractive to investors
  - LDCs are considered a safe investment, as their credit ratings are typically higher than average ratings of companies in other industries
- ◆ The financial community places great value on a constructive regulatory environment
  - Credit rating services view allowed return on equity (ROE) as an indicator of regulatory support and profitability and reflective of the performance of past investments
    - While allowed ROE remains an important measure, alternate ratemaking mechanisms such as revenue decoupling and rate riders are believed to provide stability and maintain liquidity
    - An extremely low ROE (i.e., below 10%) will likely signify a credit risk, as it may impact the required debt coverage
  - A good working relationship between utilities and regulators is crucial, especially given the current financial uncertainty

Sources: Bank of America/Merrill Lynch, Moody's, Standard & Poors

# Regulatory Landscape

- ◆ The need to invest in infrastructure has been a key driver in many rate case filings
- ◆ In recent years, gas utilities have been confronted with declining ROEs; 2009 median authorized ROEs are more than 75 basis points lower than 2000 median ROEs
- ◆ Contributing factors for this trend include:
  - Pressures of volatile commodity prices (e.g., fuel, construction materials) and increased operating costs
  - Innovative ratemaking mechanisms that were granted “in exchange for” lower ROEs (e.g., revenue decoupling)
  - Increased levels of planned capital expenditures



Source: RRA

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# Regulatory Landscape (Cont'd)

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- ◆ Some jurisdictions have allowed LDCs to recover costs for specific investments (e.g., cast iron or bare steel replacement) through a tracker or rider
  - This approach allows adjustments outside of a rate case and is often used when historical costs are inadequate to predict what will be incurred
  - For LDCs with significant investment requirements, a tracker or rider can help improve cash flow
  - However, this approach has criticisms, which include:
    - Less incentive for the utility to control costs related to these investments
    - Shifting of risk to customers
  
- ◆ Allowances for Construction Work In Progress (CWIP) are becoming more common, which is a very favorable development
  - Nearly half of states allow at least limited recovery of CWIP (e.g., for specific investments)
  - Some states allow recovery through an adjustment clause

# Impact of The American Recovery and Reinvestment Act

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- ◆ The American Recovery and Reinvestment Act of 2009 (ARRA), signed into law by President Obama on February 17, 2009, reflects the increased role of infrastructure investments in the transition to the new energy economy
- ◆ ARRA provides funding for highway construction and other infrastructure projects. This construction has required utilities to relocate their natural gas distribution pipelines
  - Utility relocation reimbursement was not made part of ARRA. Reimbursements are determined and coordinated at the state level
  - Federal law allows states to use federal funds to reimburse utilities for facility relocations. Utilities will have to work with states' transportation departments to request and secure reimbursements
- ◆ ARRA has also provided funding for “green” projects that promote natural gas as an environmentally-friendly fuel
  - Nearly \$300 million from the ARRA will go to the manufacture of alternative fuel vehicles (including natural gas vehicles) and the construction of over 500 refueling locations across the U.S.
  - Combined heat and power projects at commercial and industrial facilities where natural-gas fired generators are used to supply electricity as well as steam for heating
  - Biogas facilities that recover methane (e.g., from landfills) for generation of electricity

# Implications for Gas Utilities

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- ◆ Gas utilities will likely need to adjust their capital spending plans in the current constrained capital market. Potential actions could include:
  - Adjustment of internal hurdle rates to reflect higher cost of capital
  - Reprioritization of projects
  - Pursuit of cost recovery through innovative ratemaking mechanisms
- ◆ There are key factors if considering a rate case filing to recover infrastructure costs
  - Regulatory organizations should develop a detailed communication plan for the utility commission, customers, and other stakeholders that explains clearly the need for infrastructure investment
    - Communication should begin well in advance of any filing
  - To mitigate a potential lower ROE, a utility should evaluate the feasibility of an innovative ratemaking mechanism, such as an infrastructure cost tracker
- ◆ Plans for infrastructure spending should consider the impact of DIMP
- ◆ Utilities should determine the impact of infrastructure funding in the ARRA on their plans for capital spending. For example:
  - Additional project workload (i.e., facility relocation) projects due to highway or transit construction and improvements
  - Feasibility of potential investments in projects outside the LDC's core business

# Contact Us

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For more information on how we can help your infrastructure planning efforts or improve other aspects of your gas operations, visit our web site at <http://www.scottmadden.com/> or contact our Atlanta office:

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