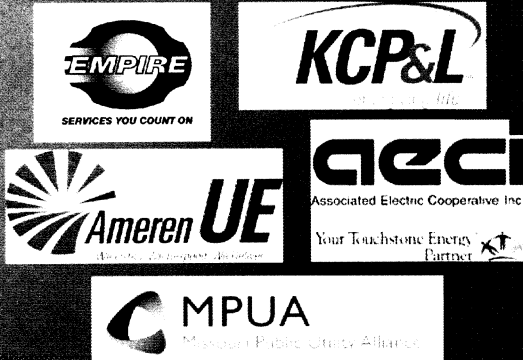


Topics

- **Missouri's Electricity – Where We Are Now**
 - Who Provides You With Electricity
 - Where Our Electricity Comes From
- **Challenges to Keeping Electricity Reliable & Affordable**
- **How We Are Facing These Challenges**
 - Future Planning Process & Results
- **Recommendations**

Missouri's Electric



The image displays five logos for Missouri's electric utilities: EMPIRE (Services You Count On), KCP&L, Ameren UE (Associated Electric Cooperative Inc.), Associated Electric Cooperative Inc. (Your Touchstone Energy Partner), and MPPUA (Missouri Public Utility Alliance).

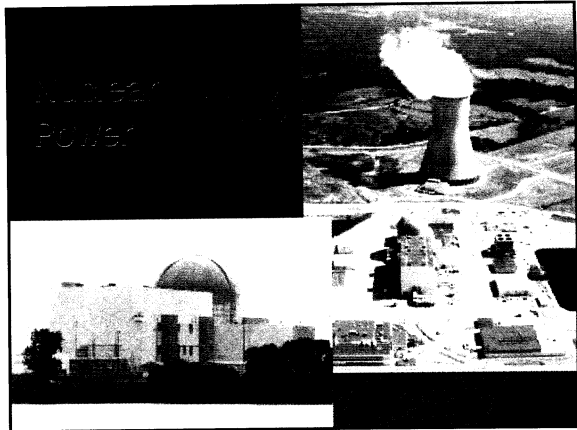
Missouri's Electric

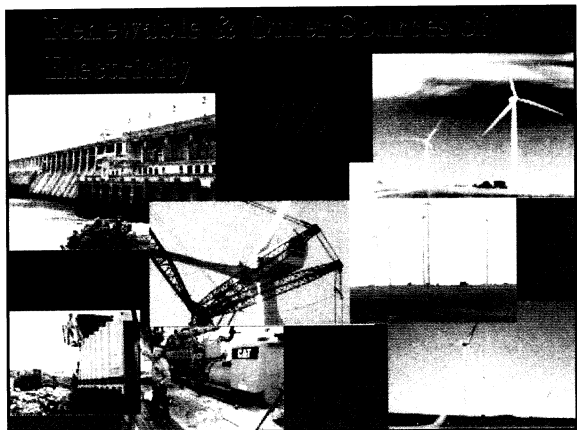
Are responsible for the four largest private construction projects in Missouri right now.

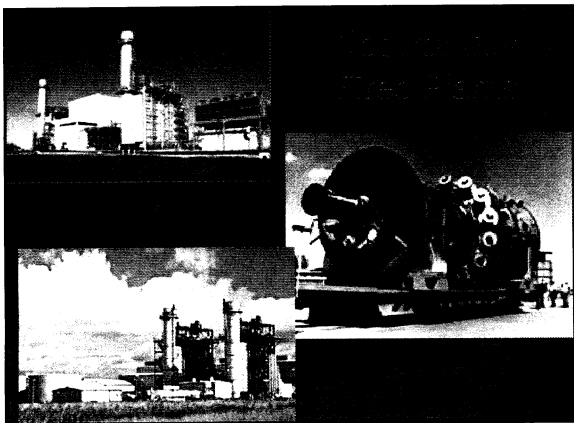
Employ over 16,000 Missourians with good paying jobs with benefits.

In 2008 paid taxes to federal, state and local governments

\$613,000,000







Challenges to Reliable Energy

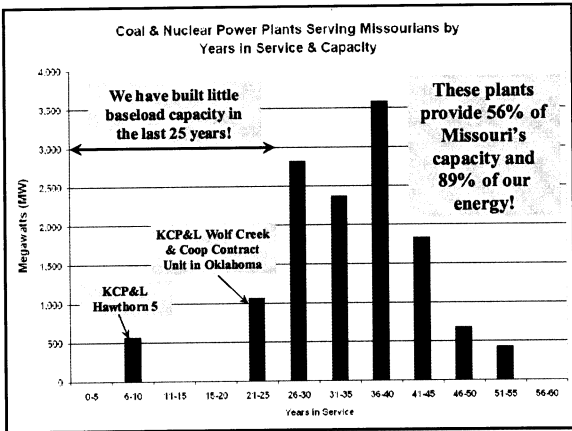
Several Factors Increasing the Cost of Power Production:

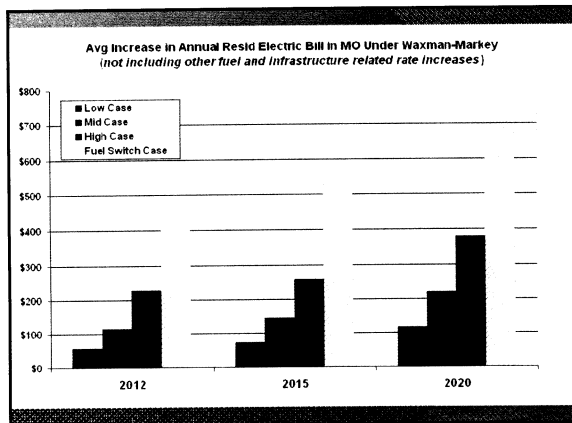
- Infrastructure Maintenance & Replacement
- Continuing Upgrades to Emissions Control Equipment
- 'Smart Grid' Infrastructure
- Higher Fuel Costs

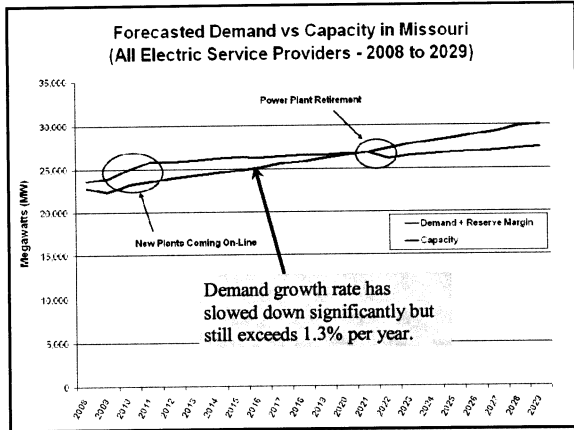
Demand Growth & Retirement of Old Plants – New Plants & Transmission Will Be More Expensive

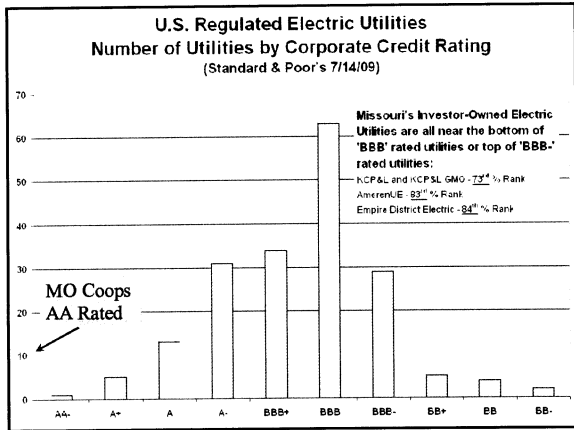
Federal Carbon Cap & Trade Legislation Represents An Enormous Risk to Missourians

- Low Utility Credit Ratings of Missouri's Utilities vs. Other States – Higher Interest Rates on Capital Needed for Major Projects... If Capital Is Available At All
- Shortage of Skilled Labor in Future (Regulated Utilities)









How We Address These Challenges

- Carefully Analyzing Options to Assure Continued Reliability of Service & Reasonable Rates
- Acting on Least Cost Plans... Building Infrastructure & Implementing Programs
- Talking With Policy Makers About Issues That Require Legislative or Regulatory Changes
 - Carbon Cap & Trade Legislation
 - Mechanisms to Improve Utility Credit Ratings & Reduce Cost of Capital for Needed Infrastructure Investment

Planning Resources to meet future needs of Affordably Integrated Resource Planning

- Ⓢ Analyze forecasted demand and supply trends to identify future needs.
- Ⓢ Consider different types of electric resources and their relative fuel costs, construction costs, reliability, environmental characteristics, etc...
- Ⓢ Construct a portfolio of resources that assures
 - 1) *reliability* and
 - 2) *affordability*under a broad range of scenarios.

When Does Our Planning Process Show us Appropriate Next Steps?

- Ⓢ **Energy Efficiency & Demand Side Management** – Pursue all cost-effective measures to reduce demand growth rates and shift usage from peak periods.
- Ⓢ **Renewables** – Pursue all cost-effective (*including forecasted cost of environmental regulations*) renewable energy options to minimize future rates and comply with Renewable Energy Standard.
- Ⓢ **Dispatchable Resources** – Nuclear, Coal and/or Natural Gas as determined by least cost modeling, demand requirements, and retirements of existing power resources.
- Ⓢ Example from IRP: *"Focus on energy efficiency with a goal of 540 MW by 2025, procure approximately 225 MW of renewable generation by 2020 and maintain the option for nuclear..."*

Skilled Labor Shortage Requirements

- Ⓢ Missouri's Energy Service Providers Employ Over 16,000 People & Can Double This Number During Major Construction Projects and Storm Restoration Efforts
- Ⓢ As With Many Industries, A Significant Percentage of Our Employees Are Approaching Retirement
- Ⓢ Actively Working w/Workforce Investment Boards (WIB), Missouri Energy Workforce Consortium (MEWC), and Center for Energy Workforce Development (CEWD) to Recruit Skilled Labor to Meet Future Needs

Electric Service Providers are helping Missouri's Economy & Quality of Life

Recommendations

Support Long Term Utility Planning Process & Investments In Needed Infrastructure

- Energy Efficiency Programs
- 'Smart Grid' Infrastructure
- Renewable Energy Resources
- Baseload/Dispatchable Sources of Power
- Transmission & Distribution Infrastructure
- Emissions Control Equipment

Take Steps to Improve Credit Ratings of Missouri's Regulated Utilities Compared to Other US Utilities

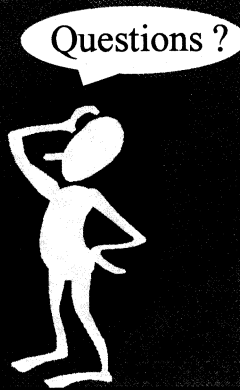
- Engage Congressional Delegation on Carbon Cap & Trade Legislation Changes to Protect Missourians
- Seek Resolution of Problems w/Infrastructure Siting, Lack of Transmission, Regional Transmission Investment Allocations, Skilled Labor Shortages & Lack of American Equipment Suppliers

Contact Information:

Warren Wood, PE
MEDA
326 East Capitol Avenue
Jefferson City, MO 65101

Phone (573) 634-8678

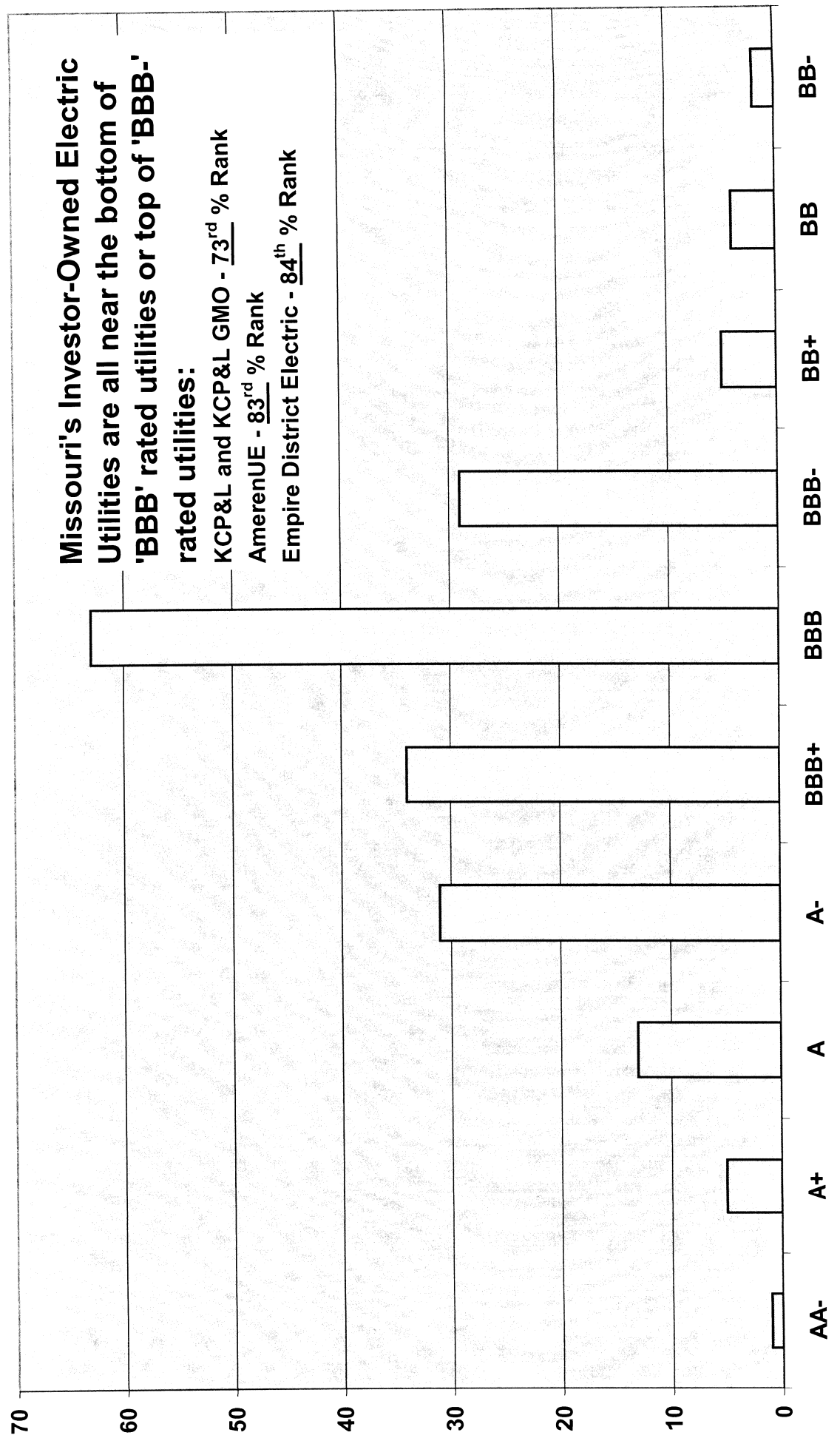
E-Mail:



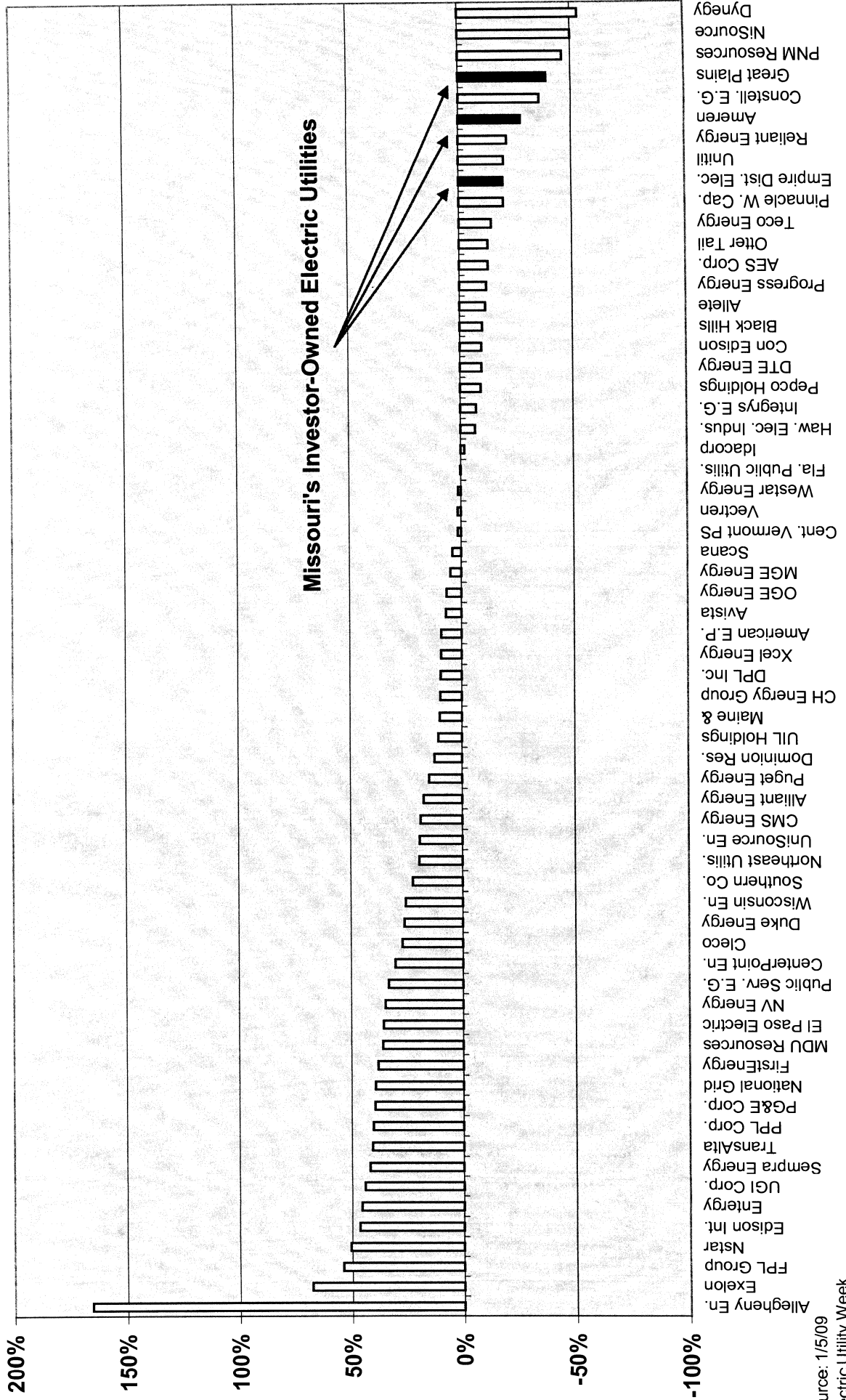
U.S. Regulated Electric Utilities

Number of Utilities by Corporate Credit Rating

(Standard & Poor's 7/14/09)

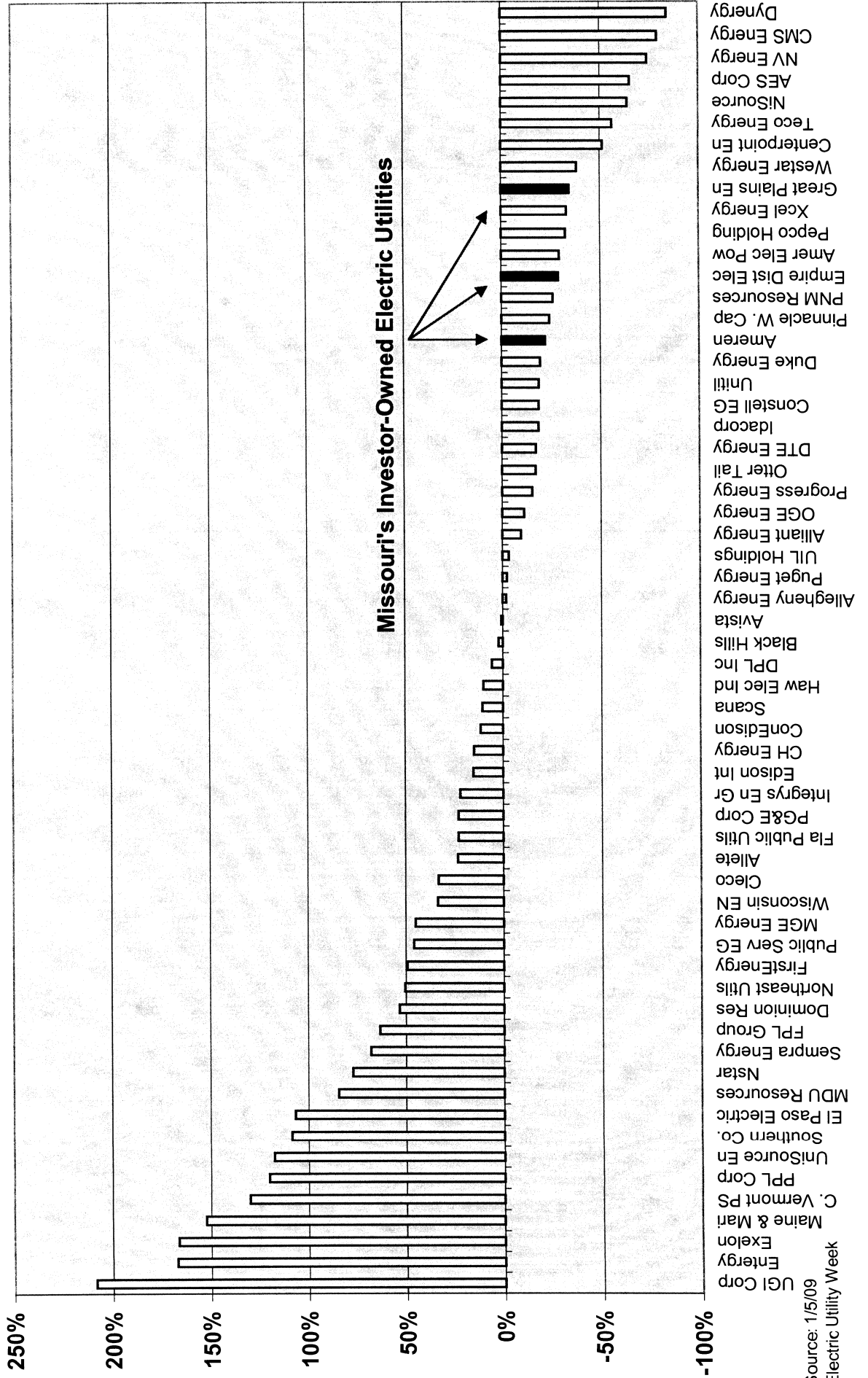


National Electric Power Common Stocks Ranked 2003 to 2008 Changes



Source: 1/5/09
Electric Utility Week

National Electric Power Common Stocks Ranked 1998 to 2008 Changes



Source: 1/5/09
Electric Utility Week

July 14, 2009

Issuer Ranking:
**U.S. Regulated Electric Utilities,
Strongest To Weakest**

Primary Credit Analyst:

John W Whitlock, New York (1) 212-438-7678; john_whitlock@standardandpoors.com

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Issuer Ranking:

U.S. Regulated Electric Utilities, Strongest To Weakest

Standard & Poor's Ratings Services recently expanded its business risk/financial matrix to better communicate our analytic opinions to the global credit market. Please see the May 27, 2009 article published on RatingsDirect titled "Criteria /Methodology: Business Risk/Financial Risk Matrix Expanded."

The following list contains Standard & Poor's ratings, outlooks, and business and financial profiles for companies with a primary regulated electric utility focus. This list reflects the current ratings and outlooks as of July 14, 2009. The rankings in each rating/outlook grouping (e.g., BBB+/Stable/--) are based on relative business risk. We have incorporated the new corporate ratings matrix into the electric utility ranking list.

A Standard & Poor's rating outlook assesses the potential direction of an issuer's long-term debt rating over the intermediate to longer term. In determining a rating outlook, we consider any changes in the economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change or future CreditWatch action. "Positive" indicates that we may raise a rating; "negative" means we may lower a rating; "stable" indicates that ratings will not likely change; and "developing" means we may raise or lower ratings.

We characterize utility business profiles as "Excellent," "Strong," "Satisfactory," "Fair," "Weak," or "Vulnerable" under the credit ratings methodology applied to all rated corporate entities at Standard & Poor's. To determine a utility's business profile, Standard & Poor's analyzes the following qualitative business or operating characteristics: markets and service area economy; competitive position; fuel and power supply; operations; asset concentration; regulation; and management. Issuer credit ratings, shown as long-term rating/outlook or CreditWatch/short-term rating, are local and foreign currency unless otherwise noted. A dash (--) indicates not rated.

For the related industry report card, please see "Amid Recession And Energy Policy Debate, U.S. Electric Utility Sector Holds Steady In Second-Quarter 2009," published June 16, 2009 on RatingsDirect.

U.S. Regulated Electric Utilities

Company	Corporate credit rating*	Business profile	Financial profile
Madison Gas & Electric Co.	AA-/Stable/A-1+	Excellent	Intermediate
-			
American Transmission Co.	A+/Stable/A-1	Excellent	Intermediate
Midwest Independent Transmission System Operator Inc.	A+/Stable/--	Excellent	Intermediate
NSTAR Electric Co.	A+/Stable/A-1	Excellent	Intermediate
NSTAR Gas Co.	A+/Stable/--	Excellent	Intermediate
NSTAR	A+/Stable/A-1	Excellent	Intermediate
-			
California Independent System Operator Corp.	A/Stable/--	Excellent	Intermediate
Florida Power & Light Co.	A/Stable/A-1	Excellent	Intermediate
KeySpan Energy Delivery Long Island	A/Stable/--	Excellent	Intermediate
KeySpan Energy Delivery New York	A/Stable/--	Excellent	Intermediate
Northern Natural Gas Co.	A/Stable/--	Excellent	Intermediate

Issuer Ranking: U.S. Regulated Electric Utilities, Strongest To Weakest

U.S. Regulated Electric Utilities (cont.)			
Alabama Power Co.	A/Stable/A-1	Excellent	Intermediate
Georgia Power Co.	A/Stable/A-1	Excellent	Intermediate
Mississippi Power Co.	A/Stable/A-1	Excellent	Intermediate
Gulf Power Co.	A/Stable/--	Excellent	Intermediate
FPL Group Inc.	A/Stable/--	Excellent	Intermediate
Southern Co.	A/Stable/A-1	Excellent	Intermediate
Central Hudson Gas & Electric Corp.	A/Stable/--	Excellent	Intermediate
-			
San Diego Gas & Electric Co.	A/Negative/A-1	Excellent	Intermediate
-			
Duke Energy Indiana Inc.	A-/Positive/A-2	Excellent	Significant
Duke Energy Carolinas LLC	A-/Positive/A-2	Excellent	Significant
Duke Energy Ohio Inc.	A-/Positive/A-2	Excellent	Significant
Duke Energy Kentucky Inc.	A-/Positive/--	Excellent	Significant
Cinergy Corp.	A-/Positive/A-2	Excellent	Significant
Duke Energy Corp.	A-/Positive/A-2	Excellent	Significant
-			
Massachusetts Electric Co.	A-/Stable/A-2	Excellent	Significant*
Narragansett Electric Co.	A-/Stable/A-2	Excellent	Significant*
New England Power Co.	A-/Stable/A-2	Excellent	Significant*
Connecticut Natural Gas Corp.	A-/Stable/--	Excellent	Intermediate
Southern Connecticut Gas Co.	A-/Stable/--	Excellent	Intermediate
Consolidated Edison Co. of New York Inc.	A-/Stable/A-2	Excellent	Significant
Orange and Rockland Utilities Inc.	A-/Stable/A-2	Excellent	Significant
Rockland Electric Co.	A-/Stable/--	Excellent	Significant
Consolidated Edison Inc.	A-/Stable/A-2	Excellent	Significant
Virginia Electric & Power Co.	A-/Stable/A-2	Excellent	Significant
Dayton Power & Light Co.	A-/Stable/--	Excellent	Intermediate
Northern States Power Wisconsin	A-/Stable/--	Excellent	Intermediate
Wisconsin Power & Light Co.	A-/Stable/A-2	Excellent	Intermediate
Wisconsin Gas LLC	A-/Stable/A-2	Excellent	Significant
Wisconsin Electric Power Co.	A-/Stable/A-2	Excellent	Significant
Southern Indiana Gas & Electric Co.	A-/Stable/--	Excellent	Intermediate
Niagara Mohawk Power Corp.	A-/Stable/A-2	Excellent	Significant
National Grid USA	A-/Stable/A-2	Excellent	Aggressive
PacifiCorp	A-/Stable/A-2	Excellent	Significant
DPL Inc.	A-/Stable/--	Excellent	Intermediate
MidAmerican Energy Co.	A-/Stable/A-2	Excellent	Significant
Dominion Resources Inc.	A-/Stable/A-2	Excellent	Significant
Energy East Corp.	A-/Stable/A-2	Excellent	Aggressive
-			
Wisconsin Public Service Corp.	A-/Negative/A-2	Excellent	Aggressive

Issuer Ranking: U.S. Regulated Electric Utilities, Strongest To Weakest

U.S. Regulated Electric Utilities (cont.)			
PPL Electric Utilities Corp.	A-/Negative/A-2	Excellent	Significant
-			
Public Service Co. of Colorado	BBB+/Positive/A-2	Excellent	Significant
Northern States Power Co.	BBB+/Positive/A-2	Excellent	Significant
Southwestern Public Service Co.	BBB+/Positive/A-2	Excellent	Significant
Xcel Energy Inc.	BBB+/Positive/A-2	Excellent	Significant
-			
Oncor Electric Delivery Co. LLC	BBB+/Stable/--	Excellent	Significant
Public Service Co. of North Carolina Inc.	BBB+/Stable/A-2	Excellent	Aggressive
Southern California Edison Co.	BBB+/Stable/A-2	Excellent	Significant
Pacific Gas & Electric Co.	BBB+/Stable/A-2	Excellent	Significant
The Berkshire Gas Co.	BBB+/Stable/--	Excellent	Aggressive
Central Maine Power Co.	BBB+/Stable/--	Excellent	Aggressive
South Carolina Electric & Gas Co.	BBB+/Stable/A-2	Excellent	Aggressive
Florida Power Corp. d/b/a Progress Energy Florida Inc.	BBB+/Stable/A-2	Excellent	Aggressive
Carolina Power & Light Co. d/b/a Progress Energy Carolinas Inc.	BBB+/Stable/A-2	Excellent	Aggressive
Kentucky Utilities Co.	BBB+/Stable/A-2	Excellent	Aggressive
Louisville Gas & Electric Co.	BBB+/Stable/--	Excellent	Aggressive
Oklahoma Gas & Electric Co.	BBB+/Stable/A-2	Excellent	Significant
Interstate Power & Light Co.	BBB+/Stable/A-2	Excellent	Significant
New York State Electric & Gas Corp.	BBB+/Stable/A-2	Excellent	Aggressive
Wisconsin Energy Corp.	BBB+/Stable/A-2	Excellent	Aggressive
Progress Energy Inc.	BBB+/Stable/A-2	Excellent	Aggressive
MidAmerican Energy Holdings Co.	BBB+/Stable/--	Excellent	Aggressive
SCANA Corp.	BBB+/Stable/--	Excellent	Aggressive
Alliant Energy Corp.	BBB+/Stable/A-2	Excellent	Significant
PG&E Corp.	BBB+/Stable/--	Excellent	Significant
E.ON U.S. LLC	BBB+/Stable/--	Excellent	Aggressive
OGE Energy Corp.	BBB+/Stable/A-2	Strong	Significant
Montana-Dakota Utilities Co.	BBB+/Stable/--	Strong	Intermediate
Enogex LLC	BBB+/Stable/--	Satisfactory	Significant
-			
Peoples Gas Light & Coke Co. (The)	BBB+/Negative/A-2	Excellent	Aggressive
North Shore Gas Co.	BBB+/Negative/--	Excellent	Aggressive
Peoples Energy Corp.	BBB+/Negative/A-2	Excellent	Aggressive
Integrus Energy Group Inc.	BBB+/Negative/A-2	Excellent	Aggressive
ALLETE Inc.	BBB+/Negative/A-2	Strong	Significant
Portland General Electric Co.	BBB+/Negative/A-2	Strong	Significant
-			
International Transmission Co.	BBB/Stable/--	Excellent	Aggressive
ITC Holdings Corp.	BBB/Stable/--	Excellent	Aggressive
ITC Midwest LLC	BBB/Stable/--	Excellent	Aggressive

Issuer Ranking: U.S. Regulated Electric Utilities, Strongest To Weakest

U.S. Regulated Electric Utilities (cont.)

Michigan Electric Transmission Co.	BBB/Stable/--	Excellent	Aggressive
Yankee Gas Services Co.	BBB/Stable/--	Excellent	Aggressive
Tampa Electric Co.	BBB/Stable/A-2	Excellent	Aggressive
Public Service Electric & Gas Co.	BBB/Stable/A-2	Excellent	Aggressive
AEP Texas Central Co	BBB/Stable/--	Excellent	Aggressive
AEP Texas North Co	BBB/Stable/--	Excellent	Aggressive
Connecticut Light & Power Co.	BBB/Stable/--	Excellent	Aggressive
Public Service Co. of New Hampshire	BBB/Stable/--	Excellent	Aggressive
Jersey Central Power & Light Co.	BBB/Stable/--	Excellent	Significant
Metropolitan Edison Co.	BBB/Stable/--	Excellent	Significant
Pennsylvania Electric Co.	BBB/Stable/--	Excellent	Significant
Cleveland Electric Illuminating Co.	BBB/Stable/--	Excellent	Significant
Ohio Edison Co.	BBB/Stable/A-2	Excellent	Significant
Pennsylvania Power Co.	BBB/Stable/--	Excellent	Significant
Toledo Edison Co.	BBB/Stable/--	Excellent	Significant
Columbus Southern Power Co.	BBB/Stable/--	Excellent	Aggressive
Ohio Power Co.	BBB/Stable/--	Excellent	Aggressive
Appalachian Power Co.	BBB/Stable/--	Excellent	Aggressive
NorthWestern Corp.	BBB/Stable/--	Excellent	Aggressive
Western Massachusetts Electric Co.	BBB/Stable/--	Excellent	Aggressive
Atlantic City Electric Co.	BBB/Stable/A-2	Excellent	Significant
Potomac Electric Power Co.	BBB/Stable/A-2	Excellent	Significant
Delmarva Power & Light Co.	BBB/Stable/A-2	Excellent	Significant
Green Mountain Power Corp.	BBB/Stable/--	Excellent	Aggressive
Kentucky Power Co.	BBB/Stable/--	Excellent	Aggressive
Public Service Co. of Oklahoma	BBB/Stable/--	Excellent	Aggressive
Southwestern Electric Power Co.	BBB/Stable/--	Excellent	Significant
Entergy Arkansas Inc.	BBB/Stable/--	Excellent	Significant
Entergy Louisiana LLC	BBB/Stable/--	Excellent	Significant
Entergy Mississippi Inc.	BBB/Stable/--	Excellent	Significant
Entergy Gulf States Louisiana LLC	BBB/Stable/--	Excellent	Significant
Entergy Texas Inc.	BBB/Stable/--	Excellent	Significant
Rochester Gas & Electric Corp.	BBB/Stable/--	Excellent	Aggressive
Cleco Power LLC	BBB/Stable/--	Excellent	Aggressive
Idaho Power Co.	BBB/Stable/A-2	Excellent	Aggressive
TECO Energy Inc.	BBB/Stable/--	Excellent	Aggressive
Puget Sound Energy Inc.	BBB/Stable/A-2	Excellent	Aggressive
American Electric Power Co. Inc.	BBB/Stable/A-2	Excellent	Aggressive
Northeast Utilities	BBB/Stable/--	Excellent	Aggressive
FirstEnergy Corp.	BBB/Stable/--	Strong	Significant
Cleco Corp.	BBB/Stable/--	Excellent	Aggressive
IDACORP Inc.	BBB/Stable/A-2	Excellent	Aggressive
El Paso Electric Co.	BBB/Stable/--	Excellent	Aggressive

Issuer Ranking: U.S. Regulated Electric Utilities, Strongest To Weakest

U.S. Regulated Electric Utilities (cont.)

System Energy Resources Inc.	BBB/Stable/--	Excellent	Aggressive
Indiana Michigan Power Co.	BBB/Stable/--	Strong	Aggressive
Entergy Corp.	BBB/Stable/--	Strong	Significant
PEPCO Holdings Inc.	BBB/Stable/A-2	Strong	Significant
-			
CenterPoint Energy Houston Electric LLC	BBB/Negative/--	Excellent	Aggressive
Kansas City Power & Light Co.	BBB/Negative/A-3	Excellent	Aggressive
KCP&L Greater Missouri Operations Co.	BBB/Negative/--	Excellent	Aggressive
Great Plains Energy Inc.	BBB/Negative/--	Excellent	Aggressive
CenterPoint Energy Inc.	BBB/Negative/A-3	Excellent	Aggressive
CenterPoint Energy Resources Corp.	BBB/Negative/A-3	Excellent	Aggressive
Michigan Consolidated Gas Co.	BBB/Negative/A-3	Strong	Significant
Hawaiian Electric Co. Inc.	BBB/Negative/A-3	Strong	Significant
Hawaiian Electric Industries Inc.	BBB/Negative/A-3	Strong	Significant
Detroit Edison Co.	BBB/Negative/A-3	Strong	Significant
DTE Energy Co.	BBB/Negative/A-3	Strong	Significant
-			
PECO Energy Co.	BBB/Watch Neg/A-2	Excellent	Aggressive
Baltimore Gas & Electric Co.	BBB/Watch Neg/A-2	Strong	Intermediate
-			
Westar Energy Inc.	BBB-/Positive/--	Excellent	Aggressive
Kansas Gas & Electric Co.	BBB-/Positive/--	Excellent	Aggressive
-			
Potomac Edison Co.	BBB-/Stable/--	Excellent	Aggressive
West Penn Power Co.	BBB-/Stable/--	Excellent	Aggressive
Monongahela Power Co.	BBB-/Stable/--	Excellent	Aggressive
Consumers Energy Co.	BBB-/Stable/--	Excellent	Aggressive
CMS Energy Corp.	BBB-/Stable/A-3	Excellent	Aggressive
Union Electric Co. d/b/a AmerenUE	BBB-/Stable/A-3	Excellent	Significant
Otter Tail Power Co.	BBB-/Stable/--	Excellent	Significant
Empire District Electric Co.	BBB-/Stable/A-3	Excellent	Aggressive
Avista Corp.	BBB-/Stable/A-3	Excellent	Aggressive
Entergy New Orleans Inc.	BBB-/Stable/--	Strong	Significant
Arizona Public Service Co.	BBB-/Stable/A-3	Strong	Significant
Edison International	BBB-/Stable/--	Strong	Aggressive
Black Hills Power Inc.	BBB-/Stable/--	Strong	Significant
Pinnacle West Capital Corp.	BBB-/Stable/A-3	Strong	Significant
Allegheny Energy Inc.	BBB-/Stable/A-3	Strong	Aggressive
Central Illinois Public Service Co.	BBB-/Stable/--	Strong	Significant
Illinois Power Co.	BBB-/Stable/--	Strong	Significant
Ohio Valley Electric Corp.	BBB-/Stable/--	Strong	Aggressive
Central Illinois Light Co.	BBB-/Stable/--	Satisfactory	Significant

Issuer Ranking: U.S. Regulated Electric Utilities, Strongest To Weakest

U.S. Regulated Electric Utilities (cont.)			
CILCORP Inc.	BBB-/Stable/--	Satisfactory	Significant
Ameren Corp.	BBB-/Stable/A-3	Satisfactory	Significant
Black Hills Corp.	BBB-/Stable/--	Satisfactory	Significant
Otter Tail Corp.	BBB-/Stable/--	Satisfactory	Significant
-			
Duquesne Light Co.	BBB-/Negative/--	Excellent	Highly leveraged
Northern Indiana Public Service Co.	BBB-/Negative/--	Excellent	Aggressive
Duquesne Light Holdings Inc.	BBB-/Negative/--	Excellent	Highly leveraged
-			
Commonwealth Edison Co.	BBB-/Watch Neg/A-3	Strong	Aggressive
-			
Central Vermont Public Service Corp.	BB+/Stable/--	Excellent	Highly leveraged
Indianapolis Power & Light Co.	BB+/Stable/--	Excellent	Highly leveraged
IPALCO Enterprises Inc.	BB+/Stable/--	Excellent	Highly leveraged
Puget Energy Inc.	BB+/Stable/--	Excellent	Aggressive
Tucson Electric Power Co.	BB+/Stable/B-2	Strong	Highly leveraged
-			
Nevada Power Co.	BB/Stable/--	Excellent	Highly leveraged
Sierra Pacific Power Co.	BB/Stable/--	Excellent	Highly leveraged
NV Energy Inc.	BB/Stable/B-2	Excellent	Highly leveraged
-			
Texas-New Mexico Power Co.	BB-/Negative/--	Satisfactory	Highly leveraged
Public Service Co. of New Mexico	BB-/Negative/B-2	Satisfactory	Highly leveraged
PNM Resources Inc.	BB-/Negative/B-2	Satisfactory	Highly leveraged

*As of July 14, 2009.

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May 2009

Maureen Duffy
maureen.duffy@amwater.com
856.309.4546

Innovative Solutions within the Water Industry: Infrastructure Surcharges

Introduction

Our nation's deteriorating water and wastewater infrastructure is in need of repair. Many of our water delivery systems were built 80 to 100 years ago and have reached the end of their functional lifespan. Furthermore, there is a critical backlog in replacing old and failing infrastructure across the U.S. and despite the fact that billions of dollars are spent annually on rehabilitating infrastructure, hundreds of billions¹ more are required to prevent infrastructure failures and provide high-quality reliable water service in the future.²

Since the water industry is highly capital intensive (more so than any other utility), repairing and replacing water and wastewater infrastructure is economically and politically challenging. As a result, some public utility commissions have allowed infrastructure replacement surcharge programs as an innovative solution for encouraging needed water and wastewater infrastructure investment in a cost efficient manner.

Background

Given the projected costs of water and wastewater infrastructure improvements, certain commissions over the last decade have put in place infrastructure surcharge programs, mechanisms for providing timelier returns on investments in critical infrastructure. Typically when a regulated water utility makes an investment, it seeks a return on that investment by filing for base rate increases. This process can be lengthy and can result in what is called regulatory lag, meaning from the time an investment is made until the utility gets a return on that investment in rates could take more than two years. This lag can have a negative impact on attracting capital to make investments as well as affect the amount of infrastructure investment a utility can make in a given period. Surcharges help investor-owned utilities earn a return on and recoup investments in repairing or replacing infrastructure in a timelier manner.

Surcharges can be used to provide timelier returns and to recoup, through depreciation, capital investments in the replacement or rehabilitation of mains, pumps, valves, service lines, hydrants, and meters as well as watermain cleaning and main relocations.

Surcharge rates are typically limited to a percentage capped between five and seven and-a-half percent of a utility's annual revenue, and have been found to have a relatively small impact on

¹ The US Environmental Protection Agency estimates that found that almost \$335 billion is needed in drinking water infrastructure investments over the next 20 years. Another \$300 to \$400 billion will be required for wastewater infrastructure.

² For more information, see American Water white paper "Challenges in the Water Industry: Infrastructure and its Role in Water Supply."

customer water bills. Most of the time, actual surcharges fall below the maximum surcharge level, and despite surcharges, water – at less than a penny per gallon – remains one of the lowest-cost utility bills for homeowners.

The surcharge rate is adjusted periodically based on infrastructure projects currently in progress or expected to be completed in the future. Typically, the surcharge is set to zero when a new base rate case begins, because the investment funded through the surcharge is then rolled into the new rate base.

Investor-owned utilities must propose surcharge programs before the state Public Utility Commission. However, once the program has received initial approval, the utility can use the surcharge mechanism without prior approval. As a ratepayer protection measure, utilities must undergo reconciliation proceedings with state public utility commissions and grant customers refunds for any over-recovery of revenue through surcharges.

The Benefits of Infrastructure Surcharges

Access to capital

Infrastructure surcharges provide utilities with a return on an investment closer to when the investment is actually made, and as such, surcharge programs tend to stimulate a utility's infrastructure replacement program so that the replacement rate better tracks the useful life of the investment. Proactively responding to infrastructure in need of repair, such as a water main, is easier and less expensive than dealing with disruptions once the main has burst.

Surcharge programs are also favorable for utilities that have difficulty financing at reasonable rates through traditional markets, especially during the current credit environment. By providing timelier returns on invested capital, infrastructure surcharge programs allow utilities to have more control over cash flow, which is valuable in times of financial volatility.

Fair and timely returns

Because surcharges recoup invested capital on a timelier basis, they are crucial in addressing regulatory lag, which is the delay in recovering investments typical in the traditional rate case process. Regulatory lag can significantly prevent utilities from recovering capital and earning a fair return on investment, which are necessary if investor-owned utilities are to be financially sound and able to attract capital at reasonable rates.

Compared to other utilities, regulatory lag tends to have an especially adverse impact on the water industry because the industry is highly capital intensive, more so than electric, natural gas, or telecommunications utilities. Consequently, utilities often experience sub par returns during periods of heavy capital investment, when they are replacing infrastructure or adding necessary treatment or distribution facilities.³ This can impact a utility's ability to raise future capital. Below, Figure 3 shows an example of how the regulatory process can delay returns on investment for several years. For illustrative purposes, the example uses a strictly historic test year, which means that the investment noted in year one, during the year the rate case was filed, would not be included in that rate case because it falls outside of the test year. Assuming one year between a rate case and one year to conduct the rate proceeding, the utility would earn no return of or on the year one investment for almost three years.

³ Lehman Brothers; Power and Utilities: Regulated Utilities; Global Equity Research, North America, May 22, 2007.

IMPACT OF REGULATORY LAG ON CAPITAL RECOVERY(Historical Test Year Basis)

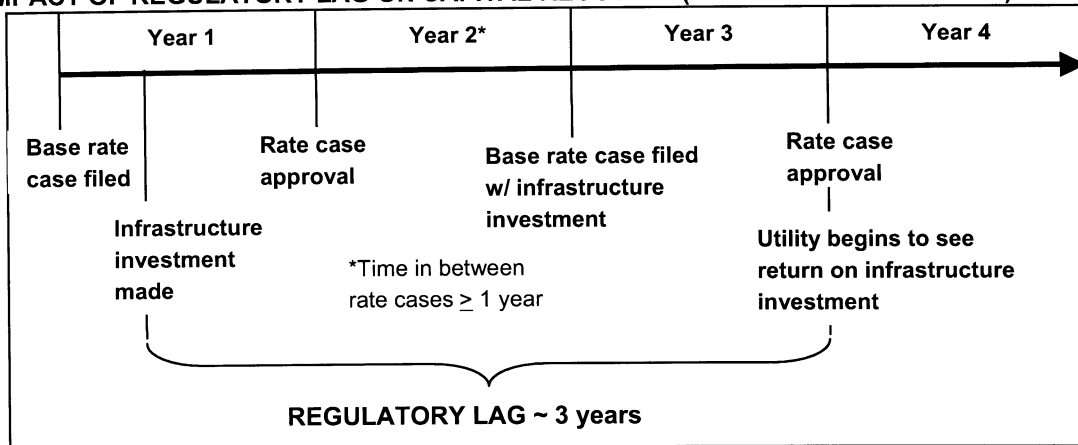


Figure 3

In reducing regulatory lag and allowing for return of and on investments closer to the time the investment is made, and thereby improving the utility's ability to actually earn the rate of return the PUC allows, surcharge programs can consequently improve a utility's bond ratings. Better ratings affect the ability to attract capital and the cost of equity and debt. This means that less money is needed for infrastructure improvements and that resulting savings can be passed on to customers.

Surcharge programs may also reduce the need to undergo costly general rate case proceedings. By recovering costs on a timelier basis through surcharge programs, utilities may be able to extend the time between filing general rate cases, as well as file for more moderate base rate increases.⁴ As a result, surcharges can mitigate or reduce "rate shock" associated with larger increases.

Surcharges in Practice


Infrastructure surcharge programs have thus far been approved by state Public Utility Commissions and/or legislatures in Pennsylvania, Delaware, New York, Indiana, Missouri, Illinois, Ohio and Connecticut.⁵ While each state's program may slightly differ, common features include caps on the amount of capital recoverable, limitations on the type of eligible investments, limitations on the timing and frequency of charges, provisions for annual reconciliations and other rate payer protections. The programs have been implemented with very few customer complaints.

Case Study: Pennsylvania American Water

- In 1996, the Pennsylvania Utility Commission allowed a Distribution System Improvement Charge (DSIC) to replace mains, valves, service lines, hydrants and meters.

⁴ While infrastructure surcharge programs can reduce the frequency of rate case filings, they cannot eliminate the need to file rate cases entirely because not all capital expenditures are eligible for surcharges and surcharges are capped at a certain amount.

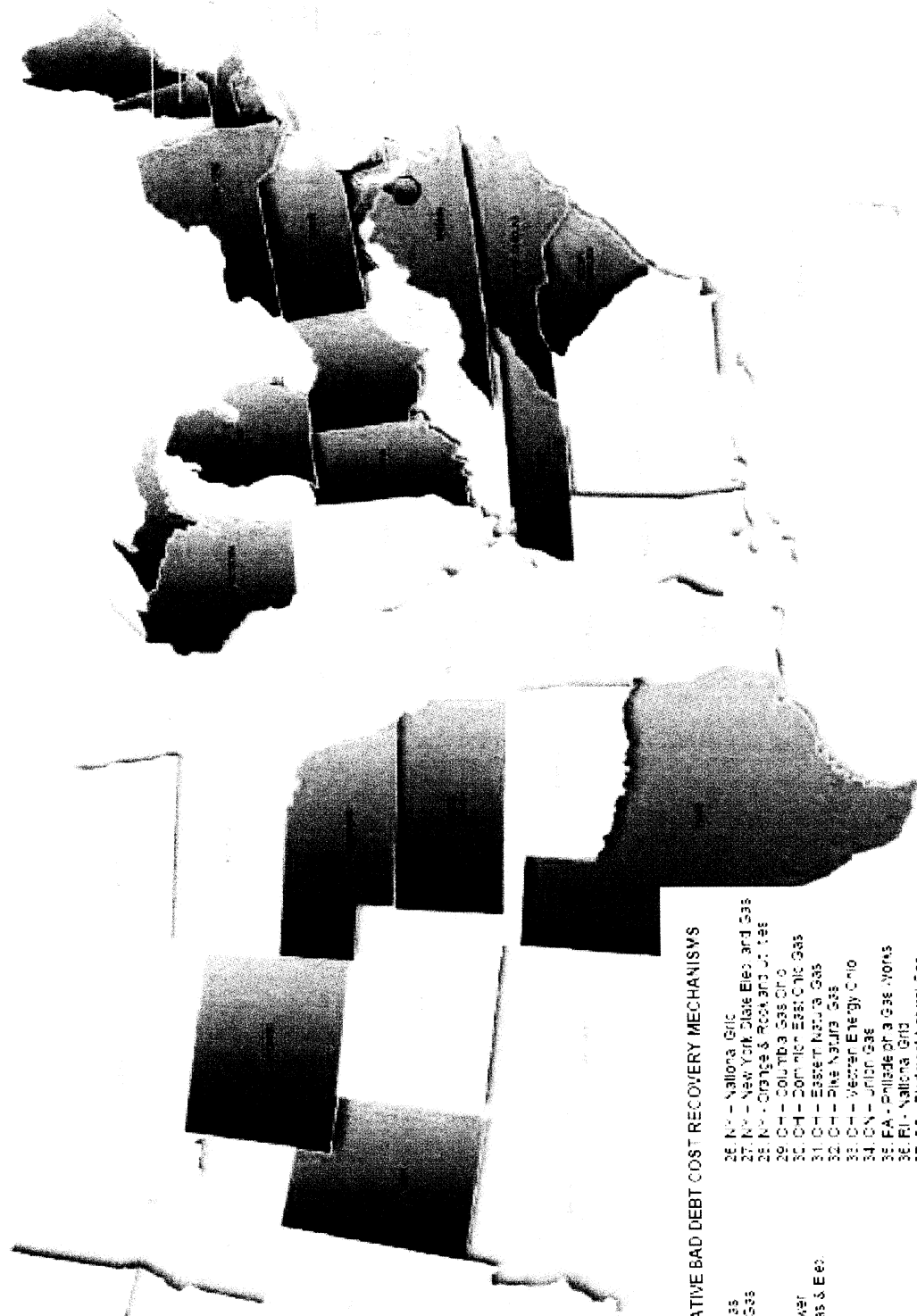
⁵ The California Public Utilities Commission also recently approved a pilot DSIC program for one of California American Water Company's districts.

- 
- Since program inception until 2009, Pennsylvania American Water's total DSIC capital investment is \$557 million.
 - As of 2009, the surcharge adds only \$1.04 to the average monthly residential water bill for Pennsylvania American Water customers.
 - The DSIC recovery cap is set at 7.5 percent of total revenue and applicable for the period in between base rate cases.
 - Since the inception of DSIC, the frequency of Pennsylvania American Water rate cases has decreased from annual to bi-annual, on average, and dramatically increased the system-wide replacement rate, all with very few customer complaints.

Conclusion

In times of rising costs and regulatory delays, utilities have found water infrastructure surcharges a viable option to reduce regulatory lag and provide for timelier repairs and replacement of necessary infrastructure. While surcharge programs improve fair and timely returns on investment and thereby improve access to capital, any needed replacement of infrastructure ultimately benefits customers who experience improved and more sustainable reliability of service and water quality. To best serve customers, it is essential for both utilities and regulators to promote infrastructure surcharge programs as an innovative, effective mechanism for funding critical projects to restore our nation's water infrastructure.

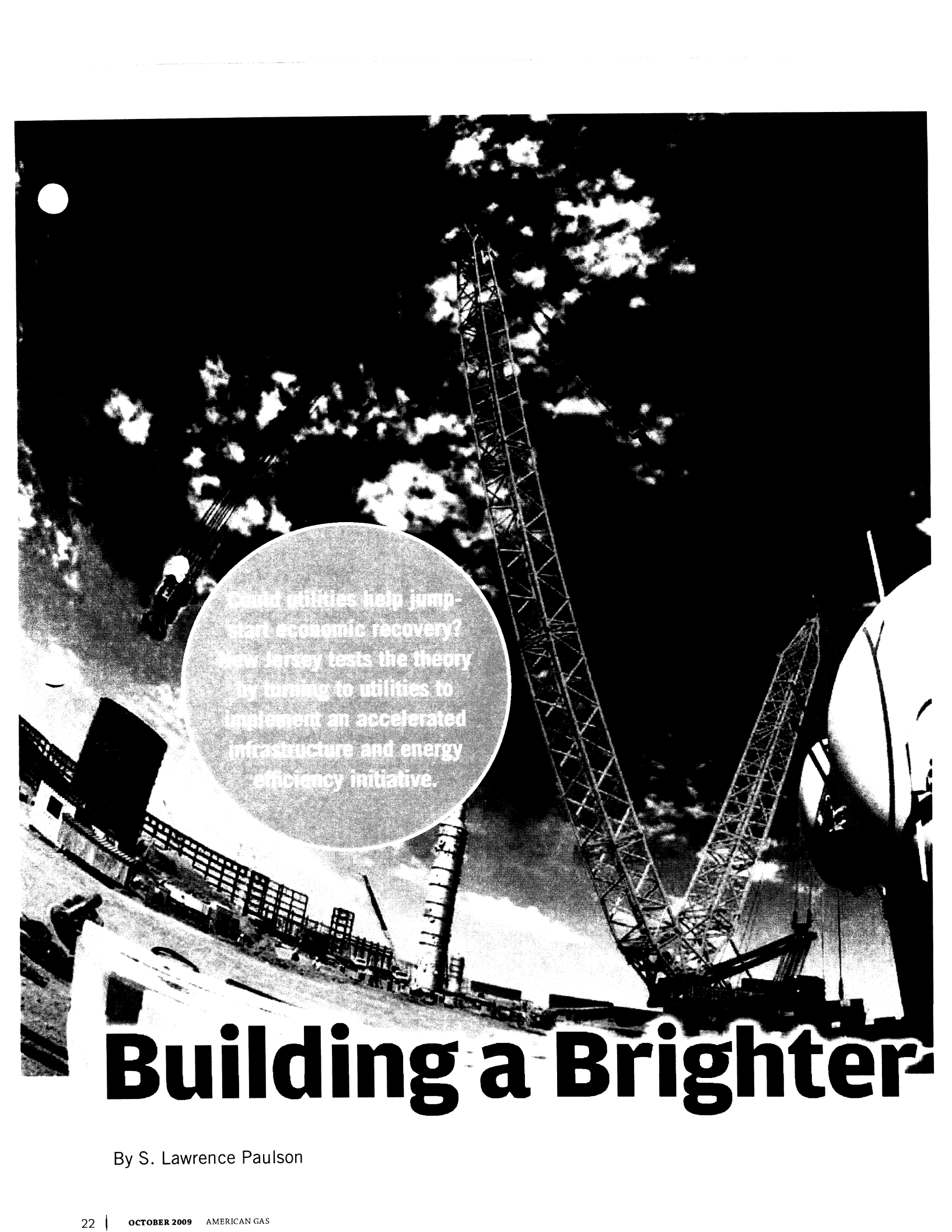
STATES WITH INNOVATIVE BAD DEBT COST RECOVERY MECHANISMS



UTILITIES WITH INNOVATIVE BAD DEBT COST RECOVERY MECHANISMS

- | | |
|--|---------------------------------------|
| 1. CT - Connecticut Natural Gas | 26. NY - National Grid |
| 2. CT - Colville Contractual Gas | 27. NY - New York State Elec. and Gas |
| 3. CT - Yankee Gas Den. Gas | 28. NY - Orange & Rockland Gas |
| 4. DC - Washington Gas | 29. OH - Columbia Gas of C. |
| 5. DE - DECO - Delaware Power | 30. OH - Dominion East Ohio Gas |
| 6. IL - Western Co. Indiana Gas & Elec. | 31. OH - Eastern Natural Gas |
| 7. IL - Black Hills | 32. OH - Duke Natural Gas |
| 8. IL - Atmos Energy | 33. OH - Western Energy Ohio |
| 9. IA - Skyline Gas | 34. OK - Union Gas |
| 10. IA - Natar Gas | 35. PA - Philadelphia Gas Works |
| 11. IA - KeySpan Edison Gas | 36. RI - National Grid |
| 12. IA - KeySpan Edison Gas | 37. CO - Piedmont Natural Gas |
| 13. MD - Baltimore Gas and Electric | 38. TN - AT&T Energy |
| 14. MD - Washington Gas | 39. TN - Chattanooga Gas |
| 15. ME - Northern Util. Gas | 40. TN - Spectrum Natural Gas |
| 16. MI - Michigan Consolidated Gas | 41. TX - Atmos Energy |
| 17. MI - Electric Natural Gas | 42. TX - Texas Gas Den. Co. |
| 18. MI - Black Hills | 43. UT - Questar Gas |
| 19. NH - Northern Utilities | 44. VA - Atmos Energy |
| 20. NH - KeySpan Energy, Inc. | 45. VA - Washington Gas |
| 21. NY - Capital Hudson Gas and Electric | 46. WI - Wisconsin Electric - Gas |
| 22. NY - Consolidated Edison | 47. WY - Questar Gas |
| 23. NY - KeySpan - New York City | |
| 24. NY - KeySpan - Long Island | |
| 25. NY - National Fuel Gas Distributor | |

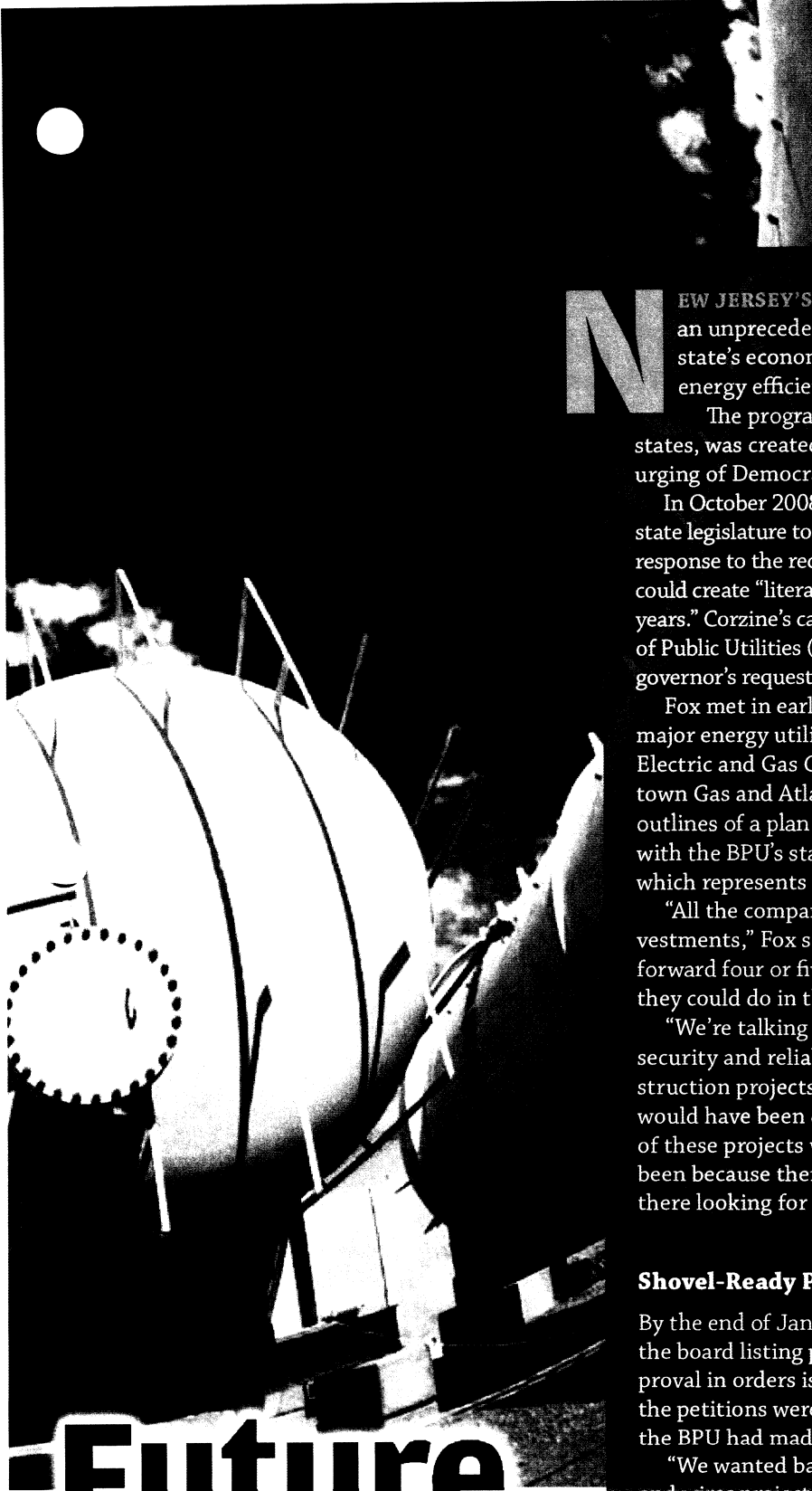
Source: September 2008 AGA
Natural Gas Rate Round-Up



Could utilities help jump-start economic recovery? New Jersey tests the theory by turning to utilities to implement an accelerated infrastructure and energy efficiency initiative.

Building a Brighter

By S. Lawrence Paulson



Future

NEW JERSEY'S major energy utilities have embarked on an unprecedented effort to create jobs and stimulate the state's economy through an accelerated infrastructure and energy efficiency initiative.

The program, which could serve as a model for other states, was created in cooperation with state regulators at the urging of Democratic Gov. Jon Corzine.

In October 2008, Corzine addressed a rare joint session of the state legislature to propose a statewide economic stimulus plan in response to the recession. He called for a "win-win" initiative that could create "literally tens of thousands of jobs over the next 10 years." Corzine's call was soon taken up by the New Jersey Board of Public Utilities (BPU). "We moved very, very quickly at the governor's request," says BPU President Jeanne Fox.

Fox met in early December with the heads of New Jersey's major energy utilities—New Jersey Natural Gas, Public Service Electric and Gas Co. (PSE&G), South Jersey Gas, Elizabethtown Gas and Atlantic City Electric—and laid out the broad outlines of a plan that was further refined through discussions with the BPU's staff; the Department of the Public Advocate, which represents ratepayers; and major energy users.

"All the companies have a plan for future infrastructure investments," Fox says. "What we asked them to do was to look forward four or five years and see if there were some projects they could do in the next 18 months to two years.

"We're talking necessary infrastructure that helps with security and reliability," she adds. "We just moved these construction projects up a little bit sooner than they otherwise would have been done. And the good news is that the costs of these projects will be less than they otherwise would have been because there are a lot of people and businesses out there looking for work."

Shovel-Ready Projects

By the end of January, all the utilities had filed petitions with the board listing proposed projects, and the BPU granted approval in orders issued April 16. With only minor exceptions, the petitions were granted as submitted, in large part because the BPU had made clear in advance what it was looking for.

"We wanted backbone projects, major pipes-in-the-ground and wires projects," Fox asserts. "For instance, we have a lot of cast-iron pipe in the state that needs to be replaced. We wanted jobs in New Jersey that were shovel-ready and that had a relationship to the reliability, security and efficiency of the system."

Building a Brighter Future

The board approved the projects on a 4–1 vote. The lone dissenting vote was cast by Commissioner Elizabeth Randall, who said she did not believe the stimulus created by the infrastructure projects would be sufficient to justify the cost to utility customers.

The BPU estimates that the \$956 million in approved spending will result in 1,300 new hires but that the multiplier effect of the spending on new infrastructure means that an estimated 14,000 new jobs will eventually be created by the initiative.

American Gas interviews with the top executives of the four natural gas utilities covered by the program confirm that most of the initial job growth will be at outside companies contracted to do the infrastructure work. The orders issued by the BPU stipulate that the utilities “will endeavor to employ contractors and engineering firms located in New Jersey.”

Contemporaneous Returns

While no stimulus dollars from the state or federal government are being used to finance these infrastructure improvements, the utilities participating in the program benefit by getting accelerated approval and the assurance of rate-base treatment for their projects.

Ralph LaRossa, president and COO of PSE&G, cites another advantage: “We have contemporaneous returns. So it’s not just approval of the projects because I think the state trusts all the utilities here that we’re prudently investing the dollars we have in our capital programs.

“What’s different about this is that we didn’t have to go out and borrow from Wall Street and other firms at a time when interest rates are volatile,” he says. “With these contemporaneous returns, a very small increase

“It’s important to highlight that this program will have a negligible effect on our customers’ bills. All it does is accelerate projects that we would have done anyway, and it’s arguable that doing these projects now will result in some cost benefits, so it’s questionable whether in the long run it’s costing customers at all.”

Edward Graham,
South Jersey Industries



“All the companies have a plan for future infrastructure investments. We asked them to look forward four or five years and see if there were some projects they could do in the next 18 months to two years. The good news is that the costs of these projects will be less than they otherwise would have been because there are a lot of people and businesses out there looking for work.”

Jeanne Fox,
New Jersey Board of
Public Utilities



in our customers’ bills means we’re able to create jobs at a low cost to the consumer while improving the reliability of the system.”

While the rate increases stemming from the program vary from company to company, they are all in the same small ballpark—less than 1 percent at PSE&G for both electric and gas work, 1 to 1.25 percent at New Jersey Natural, 0.5 percent at South Jersey Gas and 0.2 percent at Elizabethtown Gas.

Edward Graham, chairman, president and CEO of South Jersey Industries, parent of South Jersey Gas, adds, “It’s important to highlight that this program will have a negligible effect on our customers’ bills. All it does is accelerate projects that we would have done anyway, and it’s arguable that doing these projects now will result in some cost benefits, so it’s questionable whether in the long run it’s costing customers at all.”

Here are examples of the numerous infrastructure improvements planned at the four gas utilities, plus the total for each company:

Elizabethtown Gas will replace 29 miles of elevated-pressure 10- and 12-inch cast-iron main and 40 miles of low-pressure 4-inch cast-iron main. Its infrastructure program as approved by the BPU totals \$60 million.

New Jersey Natural Gas will replace eight miles of 1960s-vintage steel transmission main with 12-inch steel main and 3.5 miles of 1940s-vintage steel pipe with 16-inch steel. Its program totals \$71 million.

South Jersey Gas will install 15 miles of 24-inch gas transmission line to improve system reliability. Its program totals \$103 million.

PSE&G will replace approximately 180 miles of bare steel and cast-iron mains and associated bare steel services. Its program totals \$694 million for both gas and electric projects; the gas portion is about \$273 million.

Selecting the specific projects for inclusion in the infrastructure program was done in collaboration with the BPU staff. Larry Downes, chairman and CEO of New Jersey Resources and its principal subsidiary, New Jersey Natural Gas, notes, “The staff did a great job reviewing the projects. What they were looking for were incremental projects—projects that were outside of our normal capital budget. Our capital budget is usually for three years, but our planning horizon goes years beyond that.”

Graham says, “We looked at the most



“If you look around the state, our hospitals are one of the industries that’s under the most economic threat. So one segment of our program focused on hospitals, and they’ll see the benefit in the near term.”

Ralph LaRossa, PSE&G

significant projects that would have the most benefit for our system. We’ve already broken ground on some of them.”

At Elizabethtown Gas, engineers both in-house and at outside firms sprang into action on some very short deadlines to get projects ready for the shovels. “Just getting prepared to do these projects created plenty of work in the marketplace on the design side,” says Hank Linginfelter, executive vice president, utility operations, of AGL Resources, Elizabethtown’s parent company.

“Now we’re in the construction phase. We’ll continue some design work, but we’re in the process of accelerating the replacement of old pipe with new pipe, so that’s field jobs as well as engineering,” Linginfelter says.



“Rebates are very powerful tools to encourage the right behavior. When

you change out an old, inefficient piece of equipment with a new piece of equipment, it’s efficient every time you turn it on compared with the old, and that’s a very powerful way to improve energy conservation.”

Hank Linginfelter, AGL Resources, parent company of New Jersey’s Elizabethtown Gas

Energy Efficiency, Too

As if all this weren’t stimulus enough, the New Jersey program has a second phase: energy efficiency. Under a separate program, all the utilities involved in the infrastructure program as well as other electric utilities submitted consumer-oriented efficiency proposals that the BPU approved in July.

The BPU’s Fox explains that the efficiency programs are part of the state’s energy master plan, which Corzine put out last year, although they also are considered part of the stimulus program. “This was actually a separate proceeding from the infrastructure one. It moved quickly, but it was a more complicated process,” she says.

There was considerable variety in the efficiency programs submitted by the utilities and approved by the commission. Part of PSE&G’s plan is to increase the dollars available to help hospitals in its service territory take advantage of investment-grade energy audits.

“If you look around the state, our hospitals are one of the industries that’s under the most economic threat,” LaRossa says. “So one segment of our program focused on hospitals, and they’ll see the benefit in the near term.”

PSE&G’s audit program also targets homes and small businesses in Urban Enterprise Zone municipalities, multifamily buildings, data centers and government buildings.

South Jersey Gas, Elizabethtown Gas and New Jersey Natural are offering consumers

Will Utilities Make an Economic Impact Nationwide?

UTILITIES WILL HAVE an impact on growth in the U.S. economy and jobs in the coming months, and they also will have new opportunities to grow their own businesses, reports AGA associate member FMI Corp., a provider of management consulting and investment banking to the worldwide construction industry.

Griff Morris, FMI managing director of utilities business development, notes that \$16.8 billion in funding is available for utility construction through the U.S. Department of Energy, \$3.2 billion of which has been allocated to state energy programs. Given the current situation in which regulatory commissions will be seeking help from constituents to compete for the stimulus funds, Morris predicts the following:

- >> Stimulus funding will be delayed as new regulations are developed and implemented.
- >> Delays will take place until early 2010, followed by a robust upturn in utility construction spending for traditional projects coupled with a serious upswing in new technologies spending.
- >> Opportunities abound for utilities and major constructors as well as residential and commercial builders to form new strategic alliances to take advantage of the changing landscape. Much can be gained by partnering to provide conservation initiatives such as weatherization, home energy audits and efficiency improvements.

Utilities will have an unprecedented opportunity to assist regulators in understanding new rules and designing new regulations to help state public utility commissions compete for federal funds, Morris added.

rebates on energy-efficient heating equipment and appliances. “Rebates are very powerful tools to encourage the right behavior,” says Linginfelter. “When you change out an old, inefficient piece of equipment with a new piece of equipment, it’s efficient every time you turn it on compared with the old, and that’s a very powerful way to improve energy conservation.”

Among other elements of the utilities’ efficiency programs:



“When you think of what it takes to achieve economic growth and job creation, there is the need for the flow of capital, and under the difficult situation the economy found itself in, utilities, because of their fundamentals and generally conservative business practices and financial profile, were in a unique position to provide that support. At least, that’s how it worked out here in New Jersey.”

Larry Downes,
New Jersey Natural Gas

South Jersey Gas and Elizabethtown Gas are offering incentives for eligible customers to take a “whole-house” approach to energy efficiency and for commercial and industrial customers to install combined-heat-and-power systems. The utilities also are offering 0 percent financing for those customers who qualify for the whole-house program.

New Jersey Natural and South Jersey Gas will offer 0 percent financing to assist residential customers in implementing the Home Performance with ENERGY STAR program.

Elizabethtown Gas will provide rebates to commercial and industrial customers for the installation of gas cooling equipment.

Lessons for Other States

New Jersey had the right idea in turning to utilities for projects to help stimulate the economy, Downes says. “We’re stable and our industry is generally strong in its ability to access capital,” he explains. “A situation like this creates the opportunity to use those strengths to achieve certain goals—in this case, economic development and job creation.”

Fox says that any state looking to replicate New Jersey’s program should consider a number of factors. “Obviously it means working with the utilities, and if you have a ratepayer advocate or public counsel, bringing them in as well. In New Jersey, we also brought in interested third parties, including large energy users,” she says.

“You need to decide what are the eligible projects because you don’t want to waste the companies’ time by having them come in and then not knowing what you have in mind,” she continues. “Are you just talking pipes and wires, or are you talking more than that?”

“And then what is your time frame? We told the utilities to look out four or five years in

their capital plans and determine what they could do in the next 18 months,” Fox says.

“And then, obviously, what’s always important for a utility: what’s the ratemaking treatment? You need to talk that through with them, and you need to do it before they come in with the projects, so you narrow the effort they have to make in writing the petitions and you narrow the scope of the proceedings.”

Fox says the New Jersey commission concluded that “there had to be a nexus with a rate case.” She notes that she has worked at BPU off and on for 25 years and can’t recall the board turning down a major infrastructure investment. “But you still need a prudency review,” she says. “You really owe it to the customers. So we required that the companies had to come in within two years for a rate case. Other states might not do that, but it’s something you need to decide.”

LaRossa states that the ingredients of a successful utility-oriented stimulus effort are a “proactive commission” and a program that is ambitious enough to create a meaningful number of jobs but not so massive that customer rates are pushed way up.

“We have a 100-year replacement main program that we’re going to complete in fewer years. Accelerating the program too much, however, would have increased utility rates significantly, and that’s not what we wanted,” LaRossa says.

Downes says that the experience of working with the BPU on this project was “very positive.” He adds, “It’s been a very collaborative relationship. We have a shared interest in improving the economy of our state. I credit the BPU because they were able to move forward quickly with this and put it in place in just about three months. The staff as well as the companies understood the sense of urgency here.”

He says, “When you think of what it takes to achieve economic growth and job creation, there is the need for the flow of capital, and under the difficult situation the economy found itself in, utilities, because of their fundamentals and generally conservative business practices and financial profile, were in a unique position to provide that support.

“At least,” he adds, “that’s how it worked out here in New Jersey.”

S. LAWRENCE PAULSON is a contributing editor to American Gas.