

Public Comment on
Distribution System Improvement Charges (DSIC) for
Electric, Water, Wastewater and Natural Gas Utilities
Docket Number M-2012-2293611

by

Michael Perlow Jr., P.E. – M. ASCE
Principal Engineer, Engineering Knowledge Management LLC
443 Main Street, East Greenville, PA 18041
Tel: 267-664-3250 & Fax: 267-612-4078
mike@michaelperlowjr.com

Infrastructure Replacement Planning & Methodology

The recent passage of DSIC legislation provides PA electric, water, wastewater and natural gas utilities the ability to recover the cost of replacing aging pipelines and other facilities more quickly than would otherwise be possible through normal rate filings. The DISC legislation requires that utilities file long-term infrastructure replacement plans and methodology for determining replacement costs as well as procedures for over-charges, consumer protection measures and notifications. The enabling legislation passed is an important first step but lacks the following key steps which would provide incentives to utilities for developing accelerated utility replacement plans.

1. Every utility operator should maintain a comprehensive inventory of its utility infrastructure which includes a condition assessment and a determination of its useful life;
2. A Sustainability & Resilience Assessment should be conducted which takes into account the risk of failure, geologic and environmental hazards, and most importantly the impact of failure of adjacent infrastructure;
3. Evaluation of Life-Cycle & Replacement Costs;
4. Prioritization of critical infrastructure replacement projects; and
5. Capital investment required for infrastructure replacement.

Impact of Adjacent Utilities, Streets, Stormwater Facilities and Supporting Soils

Surface drainage, stormwater management systems and soils can experience significant hydrostatic pressures during extreme precipitation events greatly increasing the risk of subsidence, subsurface erosion, and sinkhole formation in karst areas. Even small leaks in a storm water line, catch basin, sewer line, manhole, or water line can result in subsurface erosion and subsidence of soils supporting gas mains, water and sanitary lines.

Proposed DISC Replacement Fee Reserve Accounts

It is proposed that the PUC require all electric, water, wastewater, and natural gas utilities to create DISC Reserve accounts in which all replacement fees are deposited. All monies in the replacement fee reserve accounts could only be used for infrastructure replacement. Reserve account monies would also be used obtain low-interest construction loans over the life-cycle of the system. All maintenance and repair costs would be funded through utility rate charges.

Leveraging DISC Replacement Fee Monies

It is proposed that the PUC and PA Infrastructure Bank request Federal Reserve Loan Guarantees for all infrastructure replacement projects. These loan guarantees and/or low or zero interest loans would provide the necessary capital for PA utilities to move ahead aggressively with replacement of critical infrastructure without adversely impacting rate payers. The Federal Reserve has for the past 4-years provided US financial institutions with more than \$8-trillion to as much as \$17-trillion to boost the economy. Providing a similar amount to State & Regional Infrastructure Banks would provide the necessary capital to rapid replace our aging utility infrastructure and most importantly boost our state, regional and local economies by creating local jobs.

Item	Issuer	Amount of Outlay
Commercial Paper Funding Facility	Federal Reserve	\$1.8 trillion
Temporary Liquidity Guarantee Program	FDIC	\$1.4 trillion
Term Auction Facility (TAF)	Federal Reserve	\$900 billion
Fannie Mae (NYSE: FNM), Freddie Mac (NYSE: FRE), and Ginnie Mae	U.S. Treasury / Federal Reserve	\$800 billion
Treasury Asset Relief Program (TARP)	U.S. Treasury	\$700 billion
Total USD International Currency Swap Lines	Federal Reserve	\$688 billion
Money Market Investor Funding Facility	Federal Reserve	\$540 billion
Other Loans: Primary Dealer Credit, etc.	Federal Reserve	\$288.7 billion
Citigroup (NYSE: C) Guarantee	U.S. Treasury / FDIC	\$306 billion
Hope for Homeowners Act of 2008	U.S. Treasury	\$304 billion
Term Securities Lending Facility (TSLF)	Federal Reserve	\$225 billion
Term Asset-Backed Securities Loan Facility (TALF)	U.S. Treasury	\$200 billion
Economic Stimulus Act of 2008	U.S. Treasury	\$168 billion
Paid to JPMorgan Chase (NYSE: JPM) to Settle Lehman Brothers Debt	Federal Reserve	\$138 billion
AIG (NYSE: AIG) Bailout	Federal Reserve	\$112.5 billion
Bear Stearns Brokered Sale	Federal Reserve	\$26.9 billion
I'm afraid to look ...	Total:	\$8,597,100,000,000

* "Other loans" total from the [Fed's statistical release](#) as of Nov. 19, 2008, which includes discount window lending to banks and brokerages, and the Asset-Backed Commercial Paper Money Market Liquidity Facility.

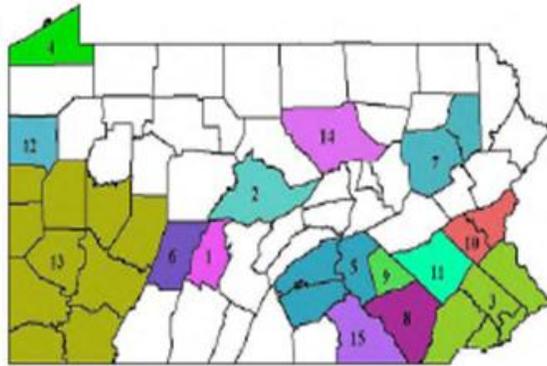
Expedited Infrastructure Replacement Plan and Project Approvals

The sheer enormity of the utility infrastructure to be replaced dictates that Regional Infrastructure Planning Committees be established within the framework of the already existing Pennsylvania Municipal Planning Organizations (MPO's) and Rural Planning Organizations (RPO's). The MPO's and RPO's have been providing review and approval for PA transportation projects for many years.

MPOs are required to develop and maintain a Long Range Transportation Plan of at least 20 years and a Transportation Improvement Program that covers four years. MPOs are supported by Federal and State Planning Funds.

MPOs in Pennsylvania are (See Map 1)

- 1. Altoona
- 2. Centre Region
- 3. Delaware Valley
- 4. Erie
- 5. Harrisburg
- 6. Johnstown
- 7. Lackawanna/Luzerne
- 8. Lancaster
- 9. Lebanon
- 10. Lehigh Valley
- 11. Reading
- 12. Shenango Valley
- 13. Southwestern Pennsylvania
- 14. Williamsport
- 15. York



PA RPO's
Rural Planning
Organizations

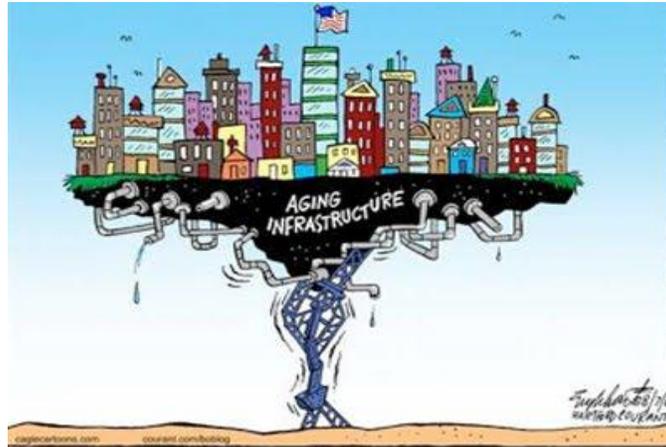
MPO & RPO Infrastructure Committees could provide the necessary replacement plan approvals for proposed DISC Replacement Fee funded infrastructure projects. In addition, sustainability and resilience reviews would be also provided on a regional basis thereby eliminating a centralized one-size fits all planning and approval process.

Summary & Conclusions

Much can be done to quickly build upon the recently passed DISC Replacement Fee Legislation. I stand with all PA consumers, utilities, and engineers to request that the PUC provide the tools for regional and local solutions to our infrastructure problems. The 75-year old Golden Gate Bridge is a shining example of how regional co-operation established the funding for the construction of the iconic bridge and led to a self-sustaining funding model that will allow the bridge to last another 100 years or more.

I would be glad to speak with any members of the commission or make a presentation to any legislative committees.

Thank You.



QUALIFICATIONS & EXPERIENCE:

Michael Perlow Jr., P.E. is an experienced civil engineer with particular expertise in geotechnical and foundation engineering with special technical expertise in failure investigations, stabilization of sinkholes in karst areas and foundation, slope, retaining wall, and utility repair. Mike has developed knowledge management and risk management systems of all types of municipal, transportation, and energy infrastructure.

Experience of groups and individuals is organized into a knowledge management system (KMS) that enables geologic & environmental hazard data to be combined with safety, engineering, operational, and risk management information for use by all levels of personnel to prevent failures and maximize operational life. Using sustainability based Life-Cycle Cost Analysis (LCCA) and utility risk assessments, recommended utility maintenance, repair and replacement programs are developed.

Through Engineering Knowledge Management LLC (EKMLLC), Mr. Perlow has established a unique **Engineering and Infrastructure Help Desk** to provide engineers, contractors, construction managers, industry, governmental agencies, authorities, and utilities with specialized consulting and risk management services.

EMPLOYMENT HISTORY:

Engineering & Infrastructure Help Desk: 2011 (Engineering Knowledge Management LLC)
Adjunct Professor: 2009 & Visiting Research Engineer: 2010 (Lehigh University)
Geologic-Environmental Knowledge Management Systems: 2007-2010 (MichaelPerlowJr.Com)
Northeast Regional Manager: 2003 to 2007 (GeoStructures Inc.)
Senior Geotechnical Engineer: 2001 to 2003 (Pennoni Associates)
Deputy Public Works Director: 1997 to 2001 (for various municipalities and authorities)
Geotechnical Engineering Principal: 1980 to 1995 (VFC Inc. & Michael Perlow Jr. Associates)
Marine Geotechnical Engineer: 1974 to 1980 (Dames & Moore & Woodward Clyde)

EDUCATION: Lehigh University, Master of Science, Civil Engineering, 1974
Lehigh University, Bachelor of Science, Civil Engineering, 1972

REGISTRATION: Professional Engineer, Pennsylvania 1979 - Present, PE-028560-E