New Jersey Natural Gas

March 19, 2012

VIA FEDERAL EXPRESS

Ms. Kristi Izzo, Secretary
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

Re: IN THE MATTER OF THE PETITION OF
NEW JERSEY NATURAL GAS COMPANY
FOR APPROVAL OF THE SAFETY
ACCELERATION AND FACILITY ENHANCEMENT
PROGRAM PURSUANT TO N.J.S.A. 48:2-23, AND
FOR APPROVAL OF THE ASSOCIATED
RECOVERY MECHANISM PURSUANT TO
N.J.S.A 48:2-21 and 2-21.1
GR12_____

Dear Secretary Izzo:

Enclosed herewith for filing please find an original and ten (10) copies of the petition and supporting documentation from New Jersey Natural Gas Company for approval of a Safety Acceleration and Facility Enhancement Program pursuant to N.J.S.A. 48:2-23, and for approval of necessary changes to gas rates and changes in the Company's Tariff for gas service pursuant to N.J.S.A. 48: 2-21 and 48:2-21.1.

Copies of the petition, including the supporting exhibits, are also being served upon the New Jersey Division of Rate Counsel and the Division of Law today.

Kindly acknowledge receipt of this filing by date stamping the enclosed copy of this letter and returning same in the self-addressed, stamped envelope.

Very truly yours,

Tracey Thayer
Director, Regulatory Affairs Counsel

Enclosures

C: Service List

NEW JERSEY NATURAL GAS COMPANY FOR APPROVAL OF THE SAFETY ACCELERATION AND FACILITY ENHANCEMENT PROGRAM PURSUANT TO N.J.S.A. 48:2-23, AND FOR APPROVAL OF THE ASSOCIATED RECOVERY MECHANISM PURSUANT TO N.J.S.A 48:2-21 and 2-21.1
DOCKET NO. GR12_____

SERVICE LIST

NJNG

Mark R. Sperduto
New Jersey Natural Gas Company
1415 Wyckoff Road
P.O. Box 1464
Wall, NJ 07719

Tracey Thayer
New Jersey Natural Gas Company
1415 Wyckoff Road
P.O. Box 1464
Wall, NJ 07719

Tina Sinks
New Jersey Natural Gas Company
1415 Wyckoff Road
P.O. Box 1464
Wall, NJ 07719

Michael Moscufo
New Jersey Natural Gas Company
1415 Wyckoff Road
P.O. Box 1464
Wall, NJ 07719

France Karras
New Jersey Natural Gas Company
1415 Wyckoff Road
P.O. Box 1464
Wall, NJ 07719

NJ BOARD OF PUBLIC UTILITIES

Jerome May
N.J. Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350

Rosalie Serapiglia
N.J. Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350

Sheila DeLucia
N.J. Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350

Bob Schultheis
N.J. Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, NJ 08625-0350

DIVISION OF RATE COUNSEL

Stefanie A. Brand, Director
Division of Rate Counsel
31 Clinton Street – 11th Floor
P.O. Box 46005
Newark, NJ 07101

Paul Flanagan
Division of Rate Counsel
31 Clinton Street – 11th Floor
P.O. Box 46005
Newark, NJ 07101

Felicia Thomas-Friel, Esq.
Division of Rate Counsel
31 Clinton Street – 11th Floor
P.O. Box 46005
Newark, NJ 07101

NEW JERSEY NATURAL GAS COMPANY FOR APPROVAL OF THE SAFETY ACCELERATION AND FACILITY ENHANCEMENT PROGRAM PURSUANT TO N.J.S.A. 48:2-23, AND FOR APPROVAL OF THE ASSOCIATED RECOVERY MECHANISM PURSUANT TO N.J.S.A 48:2-21 and 2-21.1
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SERVICE LIST

Shelly Massey
Division of Rate Counsel
31 Clinton Street – 11th Floor
P.O. Box 46005
Newark, NJ 07101

DEPT. OF LAW & PUBLIC SAFETY –
DIVISON OF LAW

Caroline Vachier, Section Chief
Dept. of Law & Public Safety – Div of Law
124 Halsey Street, 5th Floor
P.O. Box 45029
Newark, NJ 07101

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF	**)**	
NEW JERSEY NATURAL GAS COMPANY	**)**	
FOR APPROVAL OF THE SAFETY	**)**	
ACCELERATION AND FACILITY ENHANCEMENT	**)**	**PETITION**
PROGRAM PURSUANT TO N.J.S.A. 48:2-23, AND	**)**	
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PURSUANT TO N.J.S.A 48:2-21 and 2-21.1	**)**	**GR12_____**

To: THE HONORABLE COMMISSIONERS OF
THE NEW JERSEY BOARD OF PUBLIC UTILITIES:

New Jersey Natural Gas Company ("NJNG" or the "Company") respectfully petitions the New Jersey Board of Public Utilities (the "Board" or "BPU") pursuant to N.J.S.A. 48:2-23, 48:2-21 and 48:2-21.1 as follows:

1. NJNG is a corporation duly organized under the laws of the State of New Jersey and is a public utility engaged in the distribution and transportation of natural gas subject to the jurisdiction of the Board with the principal business office located at 1415 Wyckoff Road, Wall, New Jersey 07719. The Company is a local natural gas distribution company providing regulated retail natural gas service to nearly 500,000 customers within Monmouth and Ocean counties, as well as portions of Burlington, Middlesex and Morris counties.

2. Communications and correspondence relating to this filing should be sent to:

Mark R. Sperduto, Vice President, Regulatory and External Affairs
and
Tracey Thayer, Esq., Director, Regulatory Affairs Counsel
New Jersey Natural Gas Company
1415 Wyckoff Road
P. O. Box 1464
Wall, New Jersey 07719
Phone: (732) 938-1214 (Sperduto)
Phone: (732) 919-8025 (Thayer)
Fax: (732) 938-2620

3. This Petition is accompanied by supporting schedules, program information and Exhibits that are attached hereto and made part of this Petition:

Exhibit P-1 Direct Testimony of Mark R. Sperduto

Exhibit P-2 Direct Testimony of Craig A. Lynch

Exhibit P-3 Draft Public Notice

Exhibit P-4 SAFE Project Overview

4. NJNG is subject to regulation by the Board for the purposes of assuring that safe, adequate and proper natural gas service pursuant to N.J.S.A. 48:2-23 is provided to its customers. As such, the Company is obligated to and does maintain its public utility infrastructure in such condition as to enable it to meet its regulated obligations to provide the requisite service. That infrastructure is comprised of the property, plant, facilities and equipment within the Company's natural gas distribution and transmission system throughout its service territory. NJNG is also subject to regulation by the Board for the purposes of setting its retail rates to assure safe, adequate and proper natural gas service, N.J.S.A. 48:2-21 et seq.

5. Specifically, N.J.S.A. 48:2-21.1 provides the Board with the authority to negotiate and approve an adjustment to rates during the pendency of any proceeding or at any other time.

With Board approval, the public utility is then allowed to implement that negotiated rate for a period of time that may or may not be specified. Any such rate adjustment is subject to a future review and possible change in a subsequent proceeding. The Company requests that the rates and rate impacts associated with the Safety Acceleration and Facility Enhancement ("SAFE") Program cost recovery mechanism described herein be granted by the Board pursuant to this statutory authority. The Company requests that any increase resulting from these proceedings be considered interim and subject to refund until finalized in a future base rate proceeding, pursuant to N.J.S.A 48:2-21.

6. Consistent with industry practice and its ordinary capital spending planning cycle, NJNG is continuously engaged in the construction, operation and maintenance of its public utility infrastructure, including the property, plant, facilities and equipment that comprise the natural gas distribution and transmission system utilized to serve almost 500,000 customers throughout the NJNG service territory. This includes the replacement, reinforcement and expansion of its infrastructure, including its property, plant, facilities and equipment to maintain the reliability of its distribution and transmission system, and to ensure the continuation of safe, adequate and proper service.

7. In furtherance of its commitment to maintain the reliability and safety of its delivery system, NJNG is proposing the SAFE Program through which the Company will undertake a five-year capital investment program for the replacement of existing cast iron and unprotected[1] steel distribution mains and services. This filing also seeks authority for NJNG to implement a cost

[1] Included in the category of "unprotected steel" is pipe that is uncoated or that is coated but not cathodically protected. For convenience, these two categories of steel pipe are referred to as unprotected steel throughout this filing.

recovery mechanism for SAFE investments similar to that presently in place and approved by the Board for NJNG's costs associated with accelerated infrastructure investments.

Background

8. In an effort to address the state's economic downturn and to provide immediate stimulus to New Jersey's economy, NJNG submitted a filing to the BPU on January 20, 2009 for approval to accelerate certain planned infrastructure projects, BPU Docket Nos. EO09010049 and GO09010052. Through the Accelerated Energy Infrastructure Investment Program ("AIP"), NJNG proposed to expedite the planning and all construction work related to specific capital investment projects that had been in the development stages for future implementation. It was determined that expediting the work on these projects, would assist in mitigating the negative impacts from poor economic conditions by creating additional job opportunities in the state. Furthermore, the AIP proposed projects were designed to enhance service and reliability throughout the NJNG service territory. In that filing, NJNG also requested approval of a proposed method for recovering the investment costs associated with the AIP projects through base rates.

9. NJNG, the New Jersey Division of Rate Counsel[2] ("Rate Counsel"), and BPU Staff entered into a Stipulation resolving the AIP case which was approved and adopted by the Board in an Order dated April 28, 2009 ("AIP Order"). Pursuant to that Order, the Board approved the preliminary design and eventual construction of fourteen approved projects ("Qualifying Projects") on an accelerated basis. In the AIP Order, the Board also established and authorized the methodology through which NJNG can recover the AIP costs in base rates through the submission of annual rate adjustment filings to the Board with copies to Rate Counsel requesting recovery in

[2] This agency was formerly designated as the Department of the Public Advocate, Division of Rate Counsel.

base rates of the prudently incurred AIP costs ("Capital Investment Costs") associated with the Qualifying Projects. Capital Investment Costs comprise all prudently incurred capital expenditures associated with the Qualifying Projects, including actual costs of engineering, design and construction, cost of removal (net of salvage) and property acquisition, including actual labor, materials, overheads and capitalized Allowance for Funds Used During Construction ("AFUDC") associated with each of the Qualifying Projects. Subsequently, the Board approved a stipulation among NJNG, BPU Staff and Rate Counsel authorizing the Company to invest in nine additional accelerated infrastructure projects with the same cost recovery mechanism.

10. In this filing NJNG is seeking Board approval to implement a five-year capital investment program through which the Company will invest approximately $204 million prior to the capitalization of AFUDC to replace aged and highest safety risk cast iron and unprotected steel distribution lines and services. Currently, all natural gas utilities, including NJNG, face a crucial challenge related to the susceptibility of older mains and services to corrosion damage and leaks. Many of those specific assets were constructed of cast iron and/or unprotected steel, the most popular and readily available materials used in the industry prior to 1970. While NJNG has been routinely addressing the replacement of such assets in its annual capital construction planning for many years, an accelerated approach is necessary now to shorten the overall time it will take to replace this aged infrastructure. As noted, Exhibit P-2, the testimony of Craig A. Lynch ("Lynch Testimony"), there are national efforts underway to increase the safety, reliability and integrity of the country's pipeline infrastructure. U.S. Secretary of Transportation, Ray LaHood, in his "Call to Action," encourages an increased focus on pipeline replacement and the associated cost recovery.

As a result, significant efforts are being made to address older pipeline that has a greater likelihood of corrosion damage or leaks.

Safety Acceleration and Facilities Enhancement Program

11. NJNG is proposing the SAFE program as a five-year program through which the Company will replace aged and highest safety risk infrastructure. By relying on a multi-year approach, the Company and its ratepayers benefit from many cost and scheduling efficiencies, including bulk purchase savings for materials, the ability to utilize experienced internal and contractor employees, greater coordination with municipalities to lessen disruption to town services and residents, and the ability to enter into longer-term arrangements with outside contractors. Future savings will also arise from a multi-year accelerated program since there will be a reduction in operations and maintenance ("O&M") expenses after a significant amount of infrastructure is replaced. Through SAFE, cast iron and unprotected steel distribution lines ("SAFE assets") will be replaced in a coordinated and systematic manner over the proposed five-year time period. Additionally, the Company is seeking approval to continue the Board-approved cost recovery mechanism currently in place for AIP investments. Through this approach and the utilization of a balanced cost recovery mechanism, all stakeholders, including NJNG and its customers, will benefit from the opportunity to reduce the Company's inventory of SAFE assets by approximately 60 percent in five years.

12. As noted in Exhibit P-1, the testimony of Mark R. Sperduto ("Sperduto Testimony"), to date NJNG has made a concerted effort to replace cast iron and unprotected steel infrastructure in order to maintain reliability to best serve customers and to ensure the continuation of safe, adequate and proper service. In this filing, the Company proposes to

accelerate the replacement of SAFE assets in order to lessen the Company's exposure to operational risk, increase operational efficiencies and reliability while improving safety throughout the service territory. Additionally, the proposed work associated with SAFE will stimulate New Jersey's economy by providing for longer-term jobs in the construction industry. Through December 31, 2011, the AIP program, has provided for the addition of approximately 137 direct jobs, both at the Company and with major contractors providing work for these infrastructure investments. It is anticipated that the SAFE projects will create approximately 120 FTE positions, at NJNG and with contractors.

13. The above workforce development estimate does not include any potential employment increases related to indirect construction supply, services or material businesses that would result from this construction. NJNG has the results of a study conducted through the Rutgers University Bloustein School of Planning and Public Policy entitled "*Economic Impacts of Energy Infrastructure Investments.*" By relying on the Rutgers Economic Advisory Service (R/ECON™) Input-Output Model[3], that study indicated that an infrastructure investment program could create, among other things, indirect and induced one-time job-years. Indirect jobs would be those related to the activity of suppliers necessary for the infrastructure work while induced jobs relate to changes in consumer spending based on changes in labor income within a region. Put more simply, every million dollars spent on infrastructure construction projects was found to create 10.2 jobs. Based on the SAFE estimated level of spending at $204 million prior

[3] R/ECON uses several different measures, such as employment, industry output, income, gross state product and taxes, to demonstrate how economic activity impacts the total economy of a specific region. This model was used extensively in the 2008 development of the state's Energy Master Plan ("EMP") as well as in the 2011 EMP.

to the capitalization of AFUDC and, utilizing the results of the Rutgers study, the following statewide economic benefits are projected:

- 2078 direct, indirect and induced one-time job years
- $116.9 million income
- $156 million gross state product
- $6.8 million in business and household local tax revenue
- $5.6 million in business and household state tax revenue

Projects

14. NJNG will implement SAFE by planning, constructing, and installing distribution main replacement projects (the "SAFE Projects"). For the work in the first year in which SAFE is applicable, NJNG will prepare a more detailed listing of the specific SAFE Projects to be addressed, including estimated costs, general locations of the infrastructure replacement and the expected schedule within which the work will be completed and provide that information to BPU Staff and Rate Counsel within 45 days of the Board approval of SAFE. Subsequently, NJNG will provide BPU Staff and Rate Counsel with anticipated schedules, along with the estimated cost and projected timeline and completion dates, on an annual basis in June of each of the subsequent years the program is in effect. Based on current and estimated cost levels, NJNG estimates that the overall construction costs, prior to any capitalization of AFUDC, related to the SAFE Projects will total approximately $204 million over the five years of the program. The estimated costs include the accelerated replacement of mains, services and meter sets, and relates directly to the reliability, safety, and system integrity of NJNG's distribution system. It is expected that the work on mains

will be completed through independent contractors while the work on services will be conducted by both contractor personnel and NJNG employees.

Duration/Term of the SAFE

15. NJNG has developed the SAFE Program to be in effect for five years to ensure that a significant number of cast iron and/or unprotected steel mains and services, along with any necessary associated meter sets, can be replaced in a cost-efficient manner. As such, NJNG proposes that the design and construction of SAFE work commence on or after the effective date of the Board Order approving SAFE and be authorized for five years from that date.

Proposed Accounting Treatment for SAFE

16. Through this Petition, NJNG proposes to apply the current Board-approved AIP accounting treatment for all reasonable and prudently-incurred costs associated with SAFE Projects, including, but not limited to, the costs of engineering, design and construction, including labor, materials and other overheads.

(a) SAFE Projects will be separately tracked by an NJNG work order in a CWIP account;

(b) NJNG will record a monthly accrual of AFUDC which will be capitalized and included in the CWIP balance as follows:

(i) When the NJNG total CWIP balance, including CWIP associated with SAFE Projects, is less than NJNG's outstanding short-term debt ("S/T debt") balance, the applicable AFUDC rate will be equal to the Company's monthly cost of S/T debt; or

(ii) When NJNG's total CWIP balance, including CWIP associated with SAFE Projects, is greater than NJNG's outstanding S/T debt, the applicable AFUDC rate will be

equal to the Company's overall weighted-average cost of capital ("WACC"), as defined in subsection 16(e) herein;

(c) In determining the CWIP base upon which to apply the AFUDC rate, a deduction will be made for any CWIP amount currently approved for recovery and included in customer base rates;

(d) When SAFE projects are completed and providing natural gas service to customers, the plant will be transferred from CWIP to Plant in Service and depreciation expense will commence at that point in time; and

(e) The WACC to be used for purposes of calculating AFUDC accruals applicable to SAFE projects will be the rate of return most-recently approved for NJNG and authorized by the Board in an October 28, 2008 Order adopting the terms of a stipulation among NJNG, BPU Staff and Rate Counsel in the Company's most recent base rate case, Docket No. GR07110889 (the "Rate Case Order"). Accordingly, NJNG proposes to use the Board authorized WACC of 7.76 percent per annum.

Proposed SAFE Cost Recovery Mechanism

17. The Company proposes to recover the capital investment costs and expenses of SAFE Projects through the same method approved in the AIP Order. As currently done for the recovery of AIP Qualifying Project investments, NJNG will make annual SAFE rate adjustment filings with the Board, with copies provided to Rate Counsel, coincident with but separate from the annual June 1 BGSS filings, during each of the five years of SAFE program effectiveness. That filing will propose a rate change to be effective the following October 1 that is interim and subject to refund with interest. The proposed base rate adjustment will reflect actual SAFE investments for the

previous September through April and projected investments through August 31. Those estimated numbers will be updated as of August 31 by September 15 each year.

NJNG will calculate the revenue requirements associated with SAFE projects consistent with the manner in which the revenue requirements for the Company's AIP investments are reflected in base rates. Specifically, depreciation expense and return are calculated based upon the net plant investment, including AFUDC and Accumulated Deferred Income Taxes, at the rates approved in the Rate Case Order. A revenue factor reflecting income tax, bad debt and revenue-based assessments is applied to the result in order to determine revenue requirements to be incorporated into the rate adjustment. The-per therm charge will be based upon projected throughput for the upcoming NJNG annual period beginning October 1.

18. For the SAFE Program, NJNG is also proposing an additional customer protection by including both annual and cumulative rate increase limits linked to NJNG's annual revenues:

(a) Annual increases from SAFE cannot exceed one percent of total NJNG annual revenues of approximately $983 million.

(b) Cumulative increases from SAFE cannot exceed five percent of total annual NJNG revenues of approximately $983 million; and

19. Upon completion of all SAFE projects, it is anticipated that the aggregate rate impact associated with SAFE investments will result in an overall rate increase of approximately 0.7 percent to the average residential heating customer. There will be no rate impact on NJNG customers until the completion and Board approval of the first SAFE rate adjustment filing. As done now, a copy of the SAFE rate adjustment filing will be provided to Rate Counsel. NJNG will also provide public notice of any proposed base rate adjustments under the SAFE rate adjustment filing

coincident with the requisite notice currently provided to customers for proposed BGSS changes. Following approval by the Board, it is anticipated that the annual SAFE base rate adjustment will occur separately from, but at the same time as, any adjustments resulting NJNG's annual BGSS rate proceedings.

20. Pursuant to the methodology approved in the AIP Order, NJNG will recover the SAFE rate increases by adjusting, on a volumetric basis, the then-current base rate for all customer classes, in the manner prescribed in the Rate Case Order. The SAFE base rate adjustments will reflect an across-the-board adjustment to customer classes so that natural gas revenues for each class will be impacted by the same percentage. Furthermore, the volumes used in this calculation will be based on the weather-normalized forecast included in annual BGSS filing for the upcoming October-September BGSS period.

21. As currently included in the annual AIP rate filings, NJNG's SAFE rate adjustment filings will include a revenue requirement calculation that reflects the following elements:

(a) a rate of return on NJNG's net investment, calculated by multiplying NJNG's current CWIP balance, including previously-capitalized AFUDC and the Company's plant-in-service investment balance, net of Accumulated Deferred Income Taxes, associated with SAFE Projects, by NJNG's WACC of 11.40 percent, as adjusted for income taxes; and

(b) annual depreciation expense for SAFE Projects placed into service, based upon NJNG's currently-effective composite depreciation rate of 2.34 percent.

22. The information sought in Minimum Filing Requirements ("MFRs") applicable to current AIP rate adjustment filings for the Qualifying Projects, as approved in the AIP Order, will be provided in the June 1 annual filings.

23. NJNG's annual SAFE rate adjustment filing will be subject to review by the BPU Staff and Rate Counsel, prior to the request for approval and issuance of an Order by the Board establishing that the proposed rates are just and reasonable. Such review will be conducted as a contested case in accordance with the New Jersey Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq.

Public Notice

24. NJNG will provide notice of this filing to all of its customers through the publication of a notice in newspapers of general circulation. A copy of the draft Public Notice is provided in Exhibit P-3. In addition, as noted above in Paragraph 19, NJNG will give notice of any future increase in rates and modification of its Tariff related to this Petition to all of its customers through the publication of notice in the newspapers of general circulation, coincident with the notice related to the annual BGSS filing.

25. Notice and two copies of the instant filing will be served upon the Division of Law and upon Rate Counsel. Moreover, copies of the Company's filing will be available at each of NJNG's Customer Service Centers.

Semiannual Reporting

26. NJNG will provide a semiannual report to BPU Staff and Rate Counsel no later than April 1 reflecting activity for the period September 1 through February 28 of each year. Included in the report will be the following information: capital expenditures and the related job growth for SAFE projects and the status of each of the SAFE projects, including the percentage of each project completed.

Government Funding

27. If NJNG receives any federal, state, county or municipal funds or credits directly applicable to the SAFE projects, the Company will use that funding as a benefit to customers by offsetting the costs for which recovery is sought through the Annual SAFE rate adjustment filing, to the extent permitted by law.

Miscellaneous

28. In light of the expeditious nature of this filing, NJNG respectfully requests a waiver of the informational filing requirements set forth in N.J.A.C. 14:1-5.12(a) (1) through (5), and a waiver of any and all other applicable Board filing requirements as may be necessary to enable the Board to grant the relief requested herein in the shortest practical time frame, within the law. Additionally, NJNG requests that the Board retain this filing for review on an expedited basis, to meet the goals for further accelerated infrastructure development and to retain those employees previously hired for AIP.

WHEREFORE, New Jersey Natural Gas Company requests that the Board:

(1) authorize and approve the proposed five-year SAFE program work for construction and cost recovery;

(2) approve the deferral of SAFE capital investment costs and expenses;

(3) approve the cost recovery structure as described herein for the SAFE projects;

(4) retain this matter at the Board for review on an expedited basis; and

(5) grant such other and further relief as may be required.

Respectfully submitted,

New Jersey Natural Gas Company

By _____
Tracey Thayer Esq.
Director, Regulatory Affairs Counsel
New Jersey Natural Gas Company

STATE OF NEW JERSEY)
:
COUNTY OF MONMOUTH)

VERIFICATION

MARK R. SPERDUTO of full age, being duly sworn according to law, on his oath deposes and says:

1. I am Vice President, Regulatory and External Affairs for New Jersey Natural Gas Company, the Petitioner in the foregoing Petition.

2. I have read the annexed Petition, along with the Exhibits attached thereto, and the matters and things contained therein are true to the best of my knowledge and belief.

Mark R. Sperduto

Sworn and subscribed to)
before me this 19th day)
of March 2012)

Kathleen Kleinertz

SUBSCRIBED AND SWORN TO
BEFORE ME ON THIS DAY

MAR 19 2012

KATHLEEN KLEINERTZ
NOTARY PUBLIC, STATE OF NEW JERSEY
MY COMMISSION EXPIRES 08/30/2016

NEW JERSEY NATURAL GAS COMPANY

PREPARED DIRECT TESTIMONY OF MARK R. SPERDUTO

I. INTRODUCTION

Q. Please state your name, affiliation and business address.

A. My name is Mark R. Sperduto and I am the Vice President of Regulatory and External Affairs for New Jersey Natural Gas Company (the "Company" or "NJNG"). My business address is 1415 Wyckoff Road, Wall, New Jersey 07719.

Q. What are your responsibilities?

A. As Vice President of Regulatory and External Affairs**,** I manage the following departments within NJNG: Regulatory Affairs, Energy Services, Environmental Health and Safety, and Customer and Community Relations.

Q. Please describe NJNG and the service it provides.

A. NJNG is a natural gas local distribution company ("LDC") serving nearly 500,000 retail natural gas customers in New Jersey and is subject to the jurisdiction of the New Jersey Board of Public Utilities (the "Board" or "BPU"). NJNG is the principal subsidiary of New Jersey Resources ("NJR") and operates a natural gas distribution system covering over 1,400 square miles. The Company's net investment in facilities exceeds $1.3 billion.

Q. Please provide an overview of NJR and NJNG's mission and values.

A. The Company is committed to enhancing our customers' quality of life by meeting their expectations for safety, reliability and value in an environmentally responsible way. This overall commitment to our customers is met by achieving our objectives in the following seven areas that comprise our Commitment to Stakeholders:

(1) Safe, reliable and competitively-priced service;

(2) Customer satisfaction;

(3) Growth;

(4) Quality;

(5) Valuing employees;

(6) Corporate citizenship; and

(7) Superior return.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to provide an overview of the need for an accelerated replacement program for unprotected[1] steel and cast iron infrastructure, which is NJNG's response to challenges attributable to specific distribution mains and services that are aging. I will describe the cost recovery mechanism that is a component of the replacement program and explain the benefits of the Company's proposal. In addition, in Exhibit P-2 ("Lynch testimony"), Craig A. Lynch, Vice President of Energy Delivery for NJNG, provides testimony regarding the nature of NJNG's infrastructure challenges and how the planned accelerated replacement program meets those challenges in a cost-effective and timely manner.

Q. Please summarize your recommendations.

A. NJNG proposes to implement the Safety Acceleration and Facility Enhancement ("SAFE") program in order to address integrity management concerns associated with aging unprotected steel and cast iron pipe. The cost recovery component of the SAFE program is essential to achieving the program benefits outlined in the Lynch testimony. Therefore, the primary recommendation of my testimony is that the Board should approve the SAFE program, including the associated cost recovery mechanism. This recommendation is supported by the following conclusions developed in my testimony:

(1) **NJNG is committed to the safe and reliable operation of its distribution system:** Safety is an important part of the Company's overall mission and culture and is demonstrated through its safety initiatives and performance.

(2) **Safety regulators are calling for a more aggressive approach to replacing aging infrastructure in order to maintain safety:** The U.S.

[1] Non-cathodically protected steel pipe includes bare steel pipe and coated non-cathodically protected steel pipe. For convenience, the remainder of my testimony refers to these two categories of steel pipe as "unprotected steel."

Secretary of Transportation, Ray LaHood, issued a Call to Action to pipeline operators and industry stakeholders to achieve the safety and reliability benefits from replacing, on an accelerated basis, older infrastructure that is susceptible to safety hazards. Additionally, the New Jersey Energy Master Plan ("EMP") emphasizes investment in natural gas infrastructure as being a pathway to lower energy costs and enhanced energy security.

(3) **Relying on traditional base rate case recovery for accelerated replacement efforts reflected in the SAFE program is inefficient and hinders progress.** Infrastructure replacement entails substantial capital investments in non-revenue producing plant. Traditional base rate case recovery represents an impediment to achieving the safety enhancements associated with replacing the Company's unprotected steel and cast iron facilities.

(4) **The proposed cost recovery mechanism is an essential component of the SAFE program.** The proposed cost recovery mechanism is essential to achieving the cost efficiencies of accelerated replacement efforts by allowing the Company to recover the associated costs in a timely manner. Many other jurisdictions have approved similar infrastructure replacement cost recovery mechanisms in order to facilitate these important investments.

(5) **The Company's proposal provides for appropriate oversight and safeguards related to SAFE program investments:** NJNG's cost recovery proposal will enhance the review of infrastructure replacement investments by both the BPU and the New Jersey Division of Rate Counsel ("Rate Counsel") through more regular reporting and the opportunity to review the Company's program plans and performance. Additionally, the Company is proposing specific rate caps to ensure that the program remains affordable to customers.

Q. How is the remainder of your testimony organized?

A. My testimony is organized into three sections following this introduction. In Section II, I describe the various factors that led to the development of the SAFE program. These include the Company's own safety imperative as well as significant urging by safety regulators. Section III presents NJNG's proposal to recover from customers the costs of the SAFE program through an appropriate recovery mechanism. Lastly, in Section IV, I explain why the Company's proposal is needed at the present time and should be approved by the Board.

II. DEVELOPMENT OF SAFE INFRASTRUCTURE PROGRAM

Q. Please identify the primary factors that led NJNG to develop the SAFE program including the associated cost recovery proposal.

A. As of December 31, 2011, approximately 570 miles of NJNG distribution mains and 40,000 services are appreciably susceptible to leaks and safety hazards directly attributable to their material composition and age. While the unprotected steel and cast iron facilities now comprise just over 8 percent of the Company's inventory of both distribution mains and services, the safety risks associated with these aging facilities are significant and require that they eventually be replaced. The majority of these facilities are at least 45 years old, and in many cases much older. To date, NJNG has made considerable investments to replace unprotected steel and cast iron facilities, which represented 14 percent of its main and services inventory as of 2000. While the inventory of these facilities has declined due to NJNG investments in replacements, it is appropriate to implement a plan now that removes the remaining unprotected steel and cast iron facilities from service over a reasonable timeframe. The Company's SAFE plan is a prudent course of action as explained in the Lynch testimony, and provides important safety and other system benefits.

Leaders across the industry recognize the need to work aggressively to address the concerns associated with aging natural gas distribution facilities. The accelerated

replacement of unprotected steel and cast iron pipeline infrastructure is being promoted by federal safety regulators and across many jurisdictions in the U.S. Many LDCs, regulators and consumer advocates have reached consensus on programs that provide for accelerated replacement and associated cost recovery mechanisms consistent with the SAFE proposal advanced by NJNG.

Q. Please explain the Company's commitment to safety.

A. The safe operation of our distribution system is a core value for NJNG. The strength of this commitment is unyielding and is reflected across all aspects of our business. NJNG works closely with industry leaders, peer groups and regulators to continually assess and improve pipeline safety operations. This is evident in our design practices, construction techniques, inspection programs, and extensive workforce training. In addition, NJNG's Partners in Safety team works with outside contractors and municipalities to prevent damages to infrastructure facilities that create safety hazards.

Q. What infrastructure challenges are most critical in the natural gas industry today?

A. Improvements in technology and materials have led to safety enhancements across the industry, from interstate pipelines to LDCs such as NJNG. The most significant infrastructure challenges today relate to the need to meet growth in demand and to replace aging facilities that were designed before current technologies were developed. Steel mains and services installed without cathodic protection as well as cast iron mains represent the greatest potential source of leaks and safety hazards. The majority of these facilities across the U.S. were installed prior to 1970. The industry-wide concerns related to these materials have increased as they age year by year, and leak rates attributable to corrosion and material failures rise. Moreover, investments in infrastructure replacement and removal costs do not produce incremental revenues to cover or offset any of the associated cost. For this reason, cost recovery for infrastructure replacement efforts is also a critical challenge to industry stakeholders.

Q. Are there pipeline safety regulations that are relevant to these challenges?

A. Yes. Pipeline safety is an important oversight function of both federal and state agencies. The U.S. Department of Transportation ("DOT") is responsible for pipeline safety at the

federal level. The Pipeline and Hazardous Materials Safety Administration ("PHMSA"), an agency within the DOT, mandates the many requirements related to the safe operation of both natural gas transmission and distribution facilities and networks. Within New Jersey, the BPU is accountable for administering state pipeline safety requirements. The combination of federal and state pipeline safety agencies are responsible for inspecting facilities, promulgating pipeline safety rules and requirements, and administering statutory pipeline safety requirements.

Significantly, important safety regulations pertaining to LDCs recently took effect. All distribution pipeline operators are required to develop and implement a distribution integrity management plan ("DIMP"). The implementation of DIMP requires all operators to adopt risk-based approaches to managing the integrity of their facilities. Among the potential risk mitigation measures that must be considered under a DIMP is the replacement of infrastructure that is no longer fit for service. For NJNG, the single most significant operational risk assessed through the DIMP is the corrosion of unprotected steel pipe. The unpredictable nature of an incident on cast iron main makes it important to mitigate this inherent risk in its continued operation.

Q. Are there other LDCs across the U.S. facing any of the same challenges attributable to aging infrastructure?

A. Yes. NJNG closely follows infrastructure issues in the industry due to the importance infrastructure plays in ensuring the safe and reliable operation of its system. The challenges associated with replacing aging infrastructure are widespread, but reflect many aspects that are utility-specific. For instance, some LDCs serving urban areas in the Northeast exhibit greater proportions of cast iron mains than NJNG, while many LDCs in the South do not have any cast iron mains whatsoever. Similarly, many utilities exhibit a greater proportion of unprotected steel pipe than NJNG, while others have little or no unprotected steel mains and services. Even though there are utility-specific circumstances that require assessment, the need to replace aging infrastructure is a challenge for many LDCs.

Examining the proportion of unprotected steel and cast iron mains and the proportion of unprotected steel services in service on a national basis reveals that NJNG's distribution system is representative of industry-wide investment levels. As I will explain later in my testimony, many other LDCs are accelerating the replacement of unprotected steel and cast iron pipe for safety and cost reasons. Although, NJNG's circumstances are unique, its proposal is consistent with trends in the gas distribution industry.

Q. Please describe the heightened focus on natural gas pipeline safety by DOT and PHMSA.

A. In response to recent pipeline safety incidents, the U. S. Secretary of Transportation, Ray LaHood announced a Pipeline Safety Action Plan encompassing many safety initiatives, including the need to accelerate the replacement of aging pipeline facilities. Secretary LaHood issued a "Call to Action" to pipeline operators and their stakeholders to conduct a comprehensive review of their pipelines, identify areas representing higher risk and accelerate repair and replacement efforts. The Call to Action explicitly recognized that those investments enhance public safety immediately and lead to reliable pipeline infrastructure well into the future. However, without more aggressive steps, some facilities in need of replacement will remain in service for many more decades.

Q. What are the implications of the Call to Action for NJNG?

A. NJNG operates a pipeline network of mains and services over an area that exceeds 1,400 square miles and traverses localities in proximity to thousands of New Jersey homes and businesses. The Company has a significant responsibility to continue to evaluate its system as called for by Secretary LaHood and the Company's DIMP, and to engage regulators and other stakeholders in a reasoned dialog concerning the appropriate response to the infrastructure challenges facing the industry in general, and NJNG in particular.

Q. How does NJNG intend to respond to the infrastructure challenges it faces?

A. The Company is proposing to accelerate the replacement of unprotected steel and cast iron mains and services in order to eliminate approximately 60 percent of the remaining facilities over the next five years. This plan will position the Company to completely

replace its inventory of unprotected steel and cast iron facilities over an eight-year period. Further, NJNG is proposing to recover the costs of the SAFE infrastructure replacement investments through an infrastructure cost recovery mechanism consistent with those previously approved by the Board.

III. SAFE PROGRAM COST RECOVERY

Q. Why is NJNG proposing a cost recovery mechanism as a component of the SAFE program?

A. The accelerated replacement program represents a prudent course of action as explained further in the Lynch testimony. The SAFE program will involve considerable capital investments and costs of removal that are non-revenue producing. NJNG is proposing a cost recovery mechanism applicable to these specific infrastructure replacement efforts in order to address the need for timely recovery for the substantial investments to be made by the Company. The cost recovery mechanism adjusts base rates annually for SAFE investment costs, and is a straightforward means of addressing the cost recovery challenges to substantial infrastructure investments.

Q. Please explain why traditional base rate case recovery is not appropriate for the SAFE program?

A. NJNG anticipates investing approximately $204 million over the next five years as part of the SAFE program. One hundred percent of the SAFE program infrastructure investments are non-revenue producing and will not contribute incremental base rate revenues nor will the investments lead to an immediate or significant reduction in operations and maintenance ("O&M") costs. Relying on traditional base rate cases does not provide the timely recovery needed to support this level of infrastructure investment and leads to an undesirable asymmetrical change in earnings risk.

A traditional base rate case approach actually may encourage a utility to delay substantial investment in non-revenue producing infrastructure in order to avoid the earnings attrition that would result. However, one method of avoiding earnings attrition under these circumstances would be to file frequent, potentially annual, rate cases with the

BPU. Frequent rate case filings associated with a distinct, known and reviewable cost is an inefficient use of the base rate case process, requires analysis of all aspects of a utility's service, and adds to customer costs. Additionally, if other utilities face similar non-revenue producing capital requirements, frequent base rate cases for multiple utilities would most certainly place a severe strain on existing BPU and Rate Counsel staffing and resources. Another means of avoiding earnings attrition would be to revert to a reactive approach to infrastructure replacement. A reactive approach minimizes the investments undertaken in a given year. Accordingly, a reactive approach does not achieve the necessary safety enhancements and leads to higher costs over the long term.

Q. Please explain why the depreciation expense allowance incorporated in rates does not provide funding for replacing existing infrastructure under the SAFE program.

A. The purpose of a depreciation allowance in rates is to provide the utility with a return of invested capital. Depreciation expense should not be considered as a sinking fund to finance construction. Even so, the level of depreciation allowance incorporated in rates is inadequate to provide for the funding needs of the accelerated infrastructure investments. The depreciation allowance included in base rates represents the return of NJNG's capital investment made over time up to the end of the test year in its last base rate case. The level of the depreciation allowance is primarily a function of the nominal cost of all the facilities at the time of investment and the expected infrastructure life. Due to inflationary effects and improvements in piping technologies, the replacement costs exceed original costs per mile by a factor of ten to fifteen. Therefore, the depreciation allowance could not provide sufficient recovery through traditional base rates to allow NJNG to undertake the type of expenditures represented by the replacement of the Company's unprotected steel and cast iron pipe. The Company's growth in rate base is further evidence of this phenomenon.

Q. What is the link between the operational and cost recovery elements of the SAFE plan?

A. The cost recovery component of the SAFE program facilitates the benefits of the SAFE infrastructure investments by providing the Company with an essential revenue base to

offset the capital costs associated with the operational component of the program. The nexus between cost recovery and non-revenue producing plant investments has been recognized by numerous state legislatures and utility regulatory commissions that have implemented alternatives to base rate case recovery for needed infrastructure upgrades, enhancements or replacements.

NJNG's cost recovery proposal allows for an overall coordinated approach to the infrastructure challenges, through an accelerated multi-year plan. These attributes of the plan are the drivers of the many benefits that the SAFE program will achieve. The ability to realize greater economies of scale and replace facilities to a broader degree drives the cost efficiencies of the SAFE program. Thus, the cost recovery approach is an integral component of the SAFE program.

Q. What safeguards prevent the Company from spending more than is necessary on the infrastructure replacements?

A. Some opponents to these mechanisms suggest that the ability to utilize an infrastructure cost recovery mechanism can provide an incentive to "gold-plate" the necessary infrastructure. NJNG has never "gold-plated" its investments and is committed to completing the necessary infrastructure work in an operationally prudent and cost-efficient manner. Continued provision of competitively-priced service benefits all stakeholders, including the Company and its customers, and is a natural incentive to avoid over-spending on infrastructure, even with the benefit of a separate cost recovery mechanism. Moreover, the annual filing procedures that are explained later in my testimony provide the BPU and Rate Counsel with more frequent opportunities to evaluate the success of the Company in achieving the cost efficiencies that the program is intended to produce. The BPU and Rate Counsel will also be provided with the opportunity to consider the Company's construction practices and plans to ensure that over-spending is not occurring. Finally, the Company is proposing both annual and cumulative rate increase limits associated with SAFE, described further below, that are linked to NJNG's revenues, ensuring that spending levels do not result in excessive customer impacts.

Q. Have pipeline safety regulators weighed in on the importance of cost recovery to infrastructure replacement efforts?

A. Yes. A significant emphasis of the DOT's Call to Action mentioned earlier is the recognition that cost recovery mechanisms are crucial to facilitate the needed accelerated investments in replacement infrastructure. PHMSA reiterated and expanded on the role of cost recovery mechanisms in meeting the nation's pipeline replacement needs in a white paper summarizing cost recovery approaches[2]. Specifically, PHMSA provided information to state utility regulators regarding replacement programs and cost recovery approaches implemented throughout the U.S. as an important component of the Call to Action.

Q. Has the Board previously approved similar cost recovery mechanisms for natural gas infrastructure investments?

A. Yes. In 2006, the Board approved an infrastructure cost recovery mechanism for Elizabethtown Gas Company that allowed it to replace aging cast iron mains[3]. Additionally, the Board approved infrastructure cost recovery mechanisms for all four natural gas utilities in New Jersey in 2009 that provided for investment in specified infrastructure projects that enhanced safety or improved reliability[4]. NJNG's program, the Accelerated Infrastructure Program ("AIP"), provides for $131 million of infrastructure investments to be recovered through an annual adjustment to base rates. The Board extended the infrastructure programs and adopted recovery mechanisms for the remaining LDCs that closely resembled the base rate recovery mechanism approved for NJNG.

t *White Paper on State Pipeline Infrastructure Replacement Programs.* Released by PHMSA on December 19, 2011.

3 BPU Docket No. GR05040371

4 BPU Docket No. EO09010049

Q. How has the National Association of Regulatory Utility Commissioners ("NARUC") recently addressed the importance of pipeline safety overall, including the need to replace natural gas infrastructure?

A. While NARUC has traditionally tracked pipeline safety issues within their natural gas committee and staff subcommittee work, that emphasis expanded following the recent pipeline safety incidents. In March 2011, then-NARUC President Tony Clark of North Dakota announced the development of a formal NARUC working group to address and, more importantly, coordinate all advocacy efforts related to pipeline safety. The NARUC Pipeline Safety Task Force works with member commissions, federal and state government representatives, consumer groups and industry members to study related issues, investigate and share best practices, and advocate for NARUC on pipeline safety concerns at the federal level. This Task Force also meets at each of the quarterly NARUC meetings to provide informational sessions and the opportunity for Gas Committee members from various state commissions to discuss pipeline safety issues and concerns. At the most recent NARUC meeting in February 2012, a panel was convened to discuss existing and future pipeline safety regulations, recent pipeline legislation, and ratemaking policies related to recovering safety and infrastructure investments. A primary message from that meeting addressed the urgent need to replace cast iron and bare steel distribution lines in a manner that allows a natural gas utility to ensure safe and reliable service while meeting all federal and state requirements with a cost recovery approach that considers all stakeholders.

Q. Is the Company's cost recovery proposal consistent with trends across the U.S.?

A. Yes. Utility regulators in 17 other states have approved cost recovery mechanisms that facilitate the investment in natural gas infrastructure replacement. The mechanisms in these jurisdictions apply to 38 LDCs serving millions of natural gas users. Many of these recovery approaches were approved in the last several years as concerns regarding aging infrastructure have increased. Utility regulators have approved alternative cost recovery approaches for infrastructure investments in other industries as well, such as for major electric generation projects or electric distribution network modernization efforts.

Q. Please describe the specific cost recovery mechanism that you propose for SAFE infrastructure investments.

A. An appropriate form of infrastructure cost recovery mechanism was developed and approved by the BPU for prior accelerated infrastructure investments under the Company's AIP. NJNG is proposing to rely on the same recovery approach for SAFE program investments rather than develop and implement a different mechanism.

Q. What is the process for adjusting the Company's base rates to provide for recovery of SAFE program costs?

A. The Company will defer its SAFE investments in a Construction Work in Progress ("CWIP") account until it files with the BPU on or before June 1 of each year for approval to change base rates effective the subsequent October 1. Copies of these filings will also be provided to Rate Counsel. The proposed base rate adjustment will reflect actual SAFE investments for the previous September through April and projected investments through August 31. The Company will update its projections to reflect actual information through August 31 by September 15 each year.

NJNG will calculate the annual revenue requirements associated with SAFE investments consistent with the manner that the revenue requirements for the Company's AIP investments are reflected in base rates. Specifically, depreciation expense and return are calculated based upon the net plant investment, including an Allowance for Funds Used During Construction ("AFUDC"), at the rates approved in the Company's most recent base rate case in an October 28, 2008 order in Docket No. GR070889. A revenue factor reflecting income tax, bad debt and revenue-based assessments is applied to the result in order to determine revenue requirements to be incorporated into the rate adjustment. The rate adjustment is applied as an equal percentage change to all firm rate class revenues through an adjustment to the volumetric distribution rate. The per therm charge is based upon projected throughput for the upcoming annual period beginning October 1.

Q. What are the benefits of this cost recovery mechanism?

A. The most significant benefit of this cost recovery mechanism is that it provides a reasonable and rational means to implement the accelerated infrastructure replacements

provided for in the SAFE program. This specific cost recovery mechanism also appropriately emulates traditional base rate treatment of the investment costs, while ensuring timely recovery of investment costs. The prudence of the specific investments remains reviewable in a subsequent base rate case, preserving an important opportunity for all parties to ensure the appropriateness of the specific investments made by the Company. Rate increases granted under this structure will be interim and subject to refund until the company's next base rate case. Lastly, this structure is already in place and working for the AIP investments.

Q. Will the cost recovery mechanism obviate the need for future rate cases?

A. No. The cost recovery mechanism focuses on one aspect of the Company's overall costs. As such, the mechanism complements rather than substitutes for base rate cases. Specifically, the mechanism removes an impediment to the efficient and proactive investment in the non-revenue producing assets to replace aging unprotected steel and cast iron facilities. The proposal does not affect the need for base rate cases in any other respect, or alter the overall benefits of the base rate case ratemaking approach to recovering utility operating costs from customers. Rather, the SAFE program cost recovery mechanism provides a means of bridging the gap associated with traditional base rate case recovery for important non-revenue producing investments that occur over a defined period of time.

Q. Are there any rate caps associated with the proposed cost recovery mechanism?

A. Yes. In total, for the five year term of the SAFE plan, the Company is proposing to limit the revenues recoverable under the infrastructure cost recovery mechanism to five percent of total fiscal year 2011 revenues. Each individual year shall not represent a change in revenues attributable to the recovery mechanism that exceeds one percent of fiscal year 2011 revenues.

Q. Please provide an estimate of the costs of the SAFE program to customers.

A. The average annual cost per residential customer of the SAFE program is estimated to be $7.80 for the first annual recovery year beginning October 1, 2012 and will increase gradually to $9.00 for the recovery year beginning October 1, 2017. The corresponding

bill impacts for a typical residential customer are approximately 0.7 percent annually over this timeframe. Notably, investing in this program now benefits customers from an affordability perspective given the material decline in commodity gas prices and natural gas bills over the last few years.

Q. How does the Company's proposal provide appropriate regulatory oversight of the Company's investments in replacing infrastructure?

A. The use of the cost recovery mechanism for the SAFE program investments actually provides for more enhanced regulatory oversight of SAFE investments when compared with traditional base rate case review. The enhanced oversight results from separating infrastructure replacement investment from all other issues considered in a comprehensive base rate case. This provides for more focused periodic evaluation of the Company's approach to addressing the infrastructure needs of its system. NJNG intends to provide a summary of the current SAFE construction plans prior to construction as part of its annual June 1 filing. Subsequently, the Company will include actual construction cost information in its August 31 update. Allowing recovery of the costs of SAFE program investments through the infrastructure base rate adjustment mechanism will not determine prudence and that can be addressed in the next rate case. Therefore, the rights of all parties to challenge the prudence of investments made by the Company since the prior rate case are appropriately preserved.

IV. IMPORTANCE OF SAFE PROGRAM

Q. Please describe how the SAFE program proposal supports the Company's goals?

A. First and foremost, the SAFE program contributes to important safety enhancements. The program also provides important service reliability and customer satisfaction benefits to our customers. All of these benefits are detailed in the Lynch testimony.

Q. Why is this an opportune time to accelerate the replacement of aging elements of NJNG's infrastructure?

A. A number of indicators point to the appropriateness of accelerating infrastructure replacement at the present time. A significant benefit is that natural gas commodity prices

have reduced substantially and are expected to stay at lower levels for some time. The lower natural gas commodity prices enable the Company to make important investments in infrastructure without leading to an undesirable impact on customers. Current economic conditions reinforce the benefits of taking action now while the construction industry remains slow and job creation is a national priority. Reduced economic activity presents opportunities for the Company to achieve cost benefits for customers associated with outside contractor labor and materials. While these non-safety related benefits are important, the most compelling benefit is addressing, through replacement, the safety-related concerns associated with the continued operation of aging unprotected steel and cast iron pipe.

Q. How will customers benefit from the SAFE program?

A. The SAFE program targets the replacement of existing infrastructure representing the most significant risk for gas leaks and potential safety hazards at the present time. All of these facilities will require eventual replacement due to their age and material composition. Customers can realize substantial benefits under the programmatic and coordinated replacement provided for through the SAFE program by virtue of the cost savings that are achieved. The SAFE program appropriately provides for accelerated replacement and longer-term planning that drive infrastructure investment costs down.

Q. Will the approval of the SAFE program support New Jersey's Energy Master Plan ("EMP")?

A. Yes. The State's 2011 EMP emphasizes the investment in natural gas infrastructure overall as a means of lowering energy costs and enhancing energy security. More specifically, the 2011 EMP notes that modernization of the State's energy infrastructure is essential in the first half of the 21st century. NJNG's SAFE program is consistent with and supportive of the infrastructure goals set forth in the EMP.

Q. Why should the Board approve this program?

A. The SAFE program is NJNG's response to the infrastructure challenges associated with its remaining inventory of unprotected steel and cast iron mains and unprotected steel services. The program represents an appropriate solution to the safety issues associated

with operating facilities that are prone to leaks and material failures, and is fully consistent with the Company's DIMP and the U.S. DOT's Call to Action. The SAFE program provides for the accelerated replacement of existing infrastructure in a manner that promotes important cost efficiencies, and minimizes the disruptions to the communities we serve. The program also promotes economic growth in New Jersey through important job creation. In summary, the SAFE program provides for the modernization of NJNG's infrastructure while reducing long-run costs and enhancing safety and customer satisfaction. For these reasons, the Board should approve the Company's SAFE program.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

NEW JERSEY NATURAL GAS COMPANY

PREPARED DIRECT TESTIMONY OF CRAIG A. LYNCH

I. INTRODUCTION

Q. Please state your name, affiliation and business address.

A. My name is Craig A. Lynch and I am Vice-President of Energy Delivery for New Jersey Natural Gas Company (the "Company" or "NJNG"). My business address is 1415 Wyckoff Road, Wall, New Jersey 07719

Q. Please describe your responsibilities as Vice-President of Energy Delivery for New Jersey Natural Gas Company.

A. As Vice President of Energy Delivery, I oversee the entire process of maintaining, replacing and expanding NJNG's transmission and distribution system, the operation of two liquefied natural gas facilities and supervision of the storeroom, meter shop, transportation pool and gas control departments.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony addresses three important topics. Specifically, my testimony describes the Company's existing infrastructure and integrity management efforts to maintain safe and reliable service to customers. Second, I explain the challenges associated with aging unprotected steel[1] and cast iron facilities that are prone to increasing leak rates. Third, I describe NJNG's proposed Safety Acceleration and Facility Enhancement ("SAFE") program and the benefits associated with the approval and implementation of the program.

Q. Please summarize your conclusions and recommendations.

A. The principal recommendation of my testimony is that NJNG's SAFE program, supports the accelerated replacement of aging unprotected steel and cast iron facilities, is

[1] Non-cathodically protected steel pipe includes bare steel pipe and coated non-cathodically protected steel pipe. For convenience, the remainder of my testimony refers to these two categories of steel pipe as "unprotected steel"

operationally prudent and should be implemented. This recommendation is supported by the following conclusions developed in my testimony:

(1) **NJNG's integrity management efforts appropriately maintain the safety and reliability of service to customers:** The Company undertakes substantial work that includes monitoring, maintaining and replacing its system as necessary to maintain system safety and integrity. A significant portion of these efforts is associated with the parts of the system that are constructed using unprotected steel and cast iron materials.

(2) **Approximately nine percent of the Company's distribution main and services were constructed using materials that are now prone to leaks:** Decades-old unprotected steel and cast iron and mains and services experience over 95 percent of the leaks found on our system, excluding leaks due to third party damage.

(3) **Pipeline safety regulators are calling for accelerated efforts to address safety concerns associated with remaining older pipe that is subject to leaks and potential incidents.** The Pipeline and Hazardous Materials Safety Administration ("PHMSA") of the U.S. Department of Transportation ("DOT") is asking operators of natural gas distribution and transmission systems to accelerate replacement of aging infrastructure in order to enhance safety. The substantial emphasis placed on these efforts is based upon the agency's assessment of circumstances that may have contributed to an increase in hazardous incidents.

(4) **The SAFE plan will result in the replacement of a substantial portion of remaining unprotected steel and cast iron infrastructure over the next five years.** Under NJNG's SAFE plan, approximately 60 percent of the Company's existing unprotected steel and cast iron facilities would be replaced over the proposed five-year period. That represents a substantial increase compared with prior replacement rates.

(5) **The benefits of accelerating replacement efforts under the SAFE program are substantial:** In addition to ensuring essential safety benefits, the SAFE program will provide additional benefits to customers, the communities we serve, and positively benefit New Jersey employment and its economy.

Q. How is the remainder of your testimony organized?

A. My testimony is organized into four sections following this introduction. Section II provides an overview of NJNG's infrastructure and the challenges associated with aging unprotected steel and cast iron mains and services. In Section III, I describe the aspects of maintaining the integrity of NJNG's unprotected steel and cast iron facilities and the associated regulatory requirements. The Company's specific plan for replacing aging infrastructure under the SAFE program is presented in Section IV. Lastly, in Section V, I explain the benefits of the SAFE program to customers and other stakeholders.

II. NJNG INFRASTRUCTURE AND OPERATIONAL REQUIREMENTS

Q. Please provide an overview of NJNG's distribution system.

A. NJNG serves approximately 500,000 retail customers in Monmouth, Ocean, Morris, Middlesex and Burlington counties. The Company operates a network of 227 miles of large diameter transmission lines, approximately 6,800 miles of distribution mains, and approximately 466,000 service lines that exceed 7,000 miles in total length. NJNG's distribution mains range in diameter from 1 1/4 to 16 inches. The distribution system also includes various other forms of infrastructure, including line valves, pressure regulators and meter stations. The network operates in various pressure configurations depending on a variety of factors, including material type and vintage. Specifically, portions of the NJNG system operate at a maximum allowable operating pressure ("MAOP") of 722 pounds per square inch gauge ("psig") (transmission), while others operate at an MAOP of only 0.25 psig (distribution). Finally, the distribution system also consists of two Liquefied Natural Gas ("LNG") peak shaving facilities that provide important pressure support to the system in addition to serving as storage for LNG supplies.

Q. Please describe NJNG's operational goals and objectives.

A. The safe operation of NJNG's system is the Company's primary operational goal. Safety is essential to the health and well-being of the customers, residents and businesses in the communities we serve and the employees who are responsible for operating the system. NJNG also focuses on providing service on a reliable basis to customers who depend on natural gas service for heating and other essential needs. Reliability requires planning to meet the needs of customers during extreme cold weather when demand escalates and peaks. In addition, the Company seeks to achieve the safe and reliable operation of its system in a cost-effective and efficient manner.

There are a variety of operational requirements associated with achieving these goals. For instance, one requirement is the ongoing repair and maintenance of existing facilities. A second requirement is the engineering, planning and construction of new facilities to provide for growth and increased operating flexibility. A third requirement is the need to rehabilitate or replace existing facilities to meet enhanced safety mandates or to address aging infrastructure concerns. In all aspects of NJNG's operations, the Company works to continuously improve its operations and adopt best practices of the gas distribution industry. As part of that, NJNG participates in benchmarking and process improvement efforts on an ongoing basis.

Q. Has the Company made investments to upgrade and modernize its system?

A. Yes. Over the last five years the Company has invested more than $253 million in facility enhancements that were not associated with growth to serve new customers. This work includes looping and back feed projects, reinforcements, replacements, remote control valves, and line inspection projects. These expenditures include NJNG's efforts to replace system facilities.

Q. What types of materials comprise the Company's mains and services?

A. The Nation's natural gas system experienced a period of significant and broad expansion for decades following World War II. Advances in metallurgy and welding techniques enabled this expansion that brought the benefits of reliable, competitively-priced and clean-burning natural gas to millions of homes and businesses in New Jersey and

throughout the U.S. The composition of the Company's distribution mains and services reflects the material types that were considered state-of-the-art over the years as the system grew to serve new customers.

Prior to the 1940, the primary materials used for distribution pipe were wrought and cast iron. The 1940s and 1950s reflected a transition to steel materials, which were relied upon exclusively for a number of years. The strength and ductility of steel continued to improve throughout this period. The 1970s brought a transition from steel to plastic facilities except for large diameter installations that continue to rely on steel. Improvements in materials also provided for increases to allowable operating pressures over time. The Company's current distribution system includes cast iron, steel and plastic mains, and steel and plastic services.

Q. Please describe issues associated with operating aging steel facilities.

A. The main safety concern associated with steel pipe is corrosion. Steel corrosion is a natural phenomenon that occurs as steel pipe breaks down from contact with moisture present in soil. The corrosivity factor varies depending on a number of characteristics of the soil, including moisture and pH. Steel corrosion leads to gas leaks, which are a safety hazard that must be addressed in order to reduce the potential for safety related issues. Research to limit corrosion and extend the life of steel facilities resulted in the development of material enhancements associated with underground steel pipe. Initially, this entailed the use of various pipe coatings; however, older coated steel pipe is still subject to corrosion, sometimes at rates that exceed uncoated pipe. Pipe coatings were later supplemented with cathodic protection techniques that utilize electric currents to prevent corrosion. Federal pipeline safety rules mandated the cathodic protection of all steel pipe installed after 1970.

Q. Are the issues associated with operating aging cast and wrought iron facilities any different than steel?

A. Yes. Cast and wrought iron facilities are less subject to corrosion damage, but reflect brittle characteristics that potentially lead to cracks or breaks. Cast iron pipe was installed in smaller sections relying on various couplings or joints which creates a greater

susceptibility to leaks where one segment is connected to another. While age is certainly a factor, cast iron failures are frequently triggered by ground movement in proximity to buried pipe. Ground movement often occurs from frost heaves caused by periods of cold weather or nearby excavation. The potential failure of cast iron facilities is difficult to predict.

Q. Do you have data on the age of facilities that are presently in service?

A. Yes. Table 1 provides a profile of the age of NJNG's distribution mains and services as of the conclusion of 2011.

Table 1
Age Profile of NJNG Mains and Services

	Mains		Services	
Vintage	Miles	Percent	Count	Percent
Pre-1940	116	2%	9,946	2%
1940s	49	1%	2,931	1%
1950s	588	9%	35,143	8%
1960s	1,574	23%	102,757	22%
1970s	375	5%	24,229	5%
1980s	1,381	20%	90,124	19%
1990s	1,452	21%	97,107	21%
2000s	1,121	16%	88,502	19%
2010s	191	3%	15,591	3%
Total	**6,847**	**100%**	**466,330**	**100%**

Generally, the greatest concerns about potential leaks are associated with facilities installed prior to 1970 before the widespread use of plastic pipe and cathodic protection for steel pipe. The age of facilities is not the only factor in determining the fitness for service. In some cases, specific facilities or groups of facilities demonstrate increased deterioration prior to other facilities that are older. The single most significant factor affecting whether specific facilities are likely to continue to support the Company's operational goals is the material composition of the mains and services.

Q. Can you provide a breakdown of the Company's current inventory of distribution mains and services by material type?

A. Table 2 categorizes NJNG's mains and services by material composition as of December 31, 2011.

Table 2
Material Composition of NJNG Mains and Services

Material	Mains		Services	
	Miles	Percent	Count	Percent
Steel Bare Unprotected	469	7%	37,343	8%
Steel Coated Unprotected	36	1%	3,516	1%
Cast Iron	66	1%	0	0%
Subtotal SAFE Eligible	571	8%	40,859	9%
Steel Cathodically Protect	3,056	45%	82,459	18%
Plastic	3,220	47%	343,012	74%
Subtotal Other	6,276	92%	425,471	91%
Total	**6,847**	**100%**	**466,330**	**100%**

The proportion of unprotected steel and cast iron pipe that remains in service today represents a critical current and future challenge for NJNG. The Company's leak rate per mile of unprotected steel main over the last five years, is 20 times that of plastic main. Similarly, the leak rate per mile of cast iron main over the same period is 16 times that for plastic mains. While unprotected steel and cast iron facilities constitute only 8 percent of NJNG's mains and services, these facilities account for 95 percent of leaks, excluding leaks caused by third party damages. Moreover, continued corrosion is likely to increase the leak rates for older materials, which will further expand the dichotomy between leak rates for plastic pipe and for unprotected steel and cast iron pipe.

Q. Are other natural gas utilities faced with similar challenges?

A. Yes. Natural gas utilities across the U.S. with unprotected steel and cast iron infrastructure face many of the same challenges as NJNG even though the situation for each LDC is specific and unique. On average, 10 percent of distribution mains and 8 percent of distribution services throughout the U.S. are comprised of materials that will eventually require replacement. These are essentially the same proportions as indicated for NJNG. The presence of aging unprotected steel and cast iron natural gas infrastructure is receiving considerable national attention due to the safety concerns I discussed previously. While utilities have long focused on managing the integrity of these elements of their infrastructure, recent incidents have greatly heightened the emphasis that industry members, safety regulators and other stakeholders are placing on addressing potential risks associated with aging infrastructure. In fact, DOT secretary Ray LaHood recently initiated a comprehensive Call to Action for industry participants to come together to consider pipeline safety issues.

Q. What is the overall purpose of the Call to Action?

A. Secretary LaHood is calling for an evaluation of the fitness for service of aging aspects of natural gas infrastructure and for actions to be taken to address safety risks. The plan seeks to involve operators such as local distribution companies ("LDCs"), utility regulators, safety regulators and other interested stakeholders in the development of a strategy for addressing aging natural gas infrastructure. The Call to Action requires pipeline owners and operators, such as NJNG, to take an aggressive approach to repairing and replacing pipeline facilities in poor condition. The Call to Action specifically identifies the benefits of investing in infrastructure to ensure public safety and to provide for the future integrity of the pipeline system.

III. NJNG INTEGRITY MANAGEMENT OF AGING FACILITIES.

Q. Please describe what the term integrity management means in relation to the operation of LDC facilities.

A. Integrity management generally refers to the process of identifying, evaluating and addressing potential or direct threats to system integrity. PHMSA, the agency within the DOT with primary Federal responsibility for regulation of natural gas pipeline safety, categorizes potential hazards according to the following eight sources: corrosion, natural forces, excavation, other outside force damage, material or welds, equipment, operations and other. Integrity management applies to all of these potential threats and requires management and industry focus in order to maintain safety. The single most significant source of reported leaks to PHMSA is corrosion, which is the primary focus of my testimony together with the category of materials and welds.

Q. What are NJNG's primary operating procedures associated with integrity management?

A. A significant number of the Company's operational systems and procedures are driven by or relate to integrity management. As discussed in Exhibit P-1, the testimony of Mark R. Sperduto ("Sperduto testimony"), NJNG's corporate philosophy emphasizes the integrity management responsibilities of all employees. In broad terms, this includes the development of systems and procedures that maintain accurate data concerning the location and material of all facilities in the Company's network, periodic inspections and leak surveys, responses to gas leak calls, evaluation of individual leaks, maintenance and repair of facilities, emergency repair, planned replacements and the use of various forms of promotion to increase public awareness of underground natural gas infrastructure. Each of these broad categories incorporates appropriately detailed activities and reflects dedicated resources and management oversight to support the safe operation of NJNG's system.

Moreover, the majority of work performed by the Company that falls under the umbrella of integrity management relates to unprotected steel and cast iron pipe. For instance, the

frequency of leak surveys and number of emergency repairs is greater for unprotected steel and cast iron pipe than for plastic and cathodically protected steel.

Q. Are there federal and state regulatory requirements related to these activities?

A. Yes. The safety of natural gas transmission and distribution pipelines is regulated by a combination of federal and state laws, regulations, and agencies. In New Jersey, the Board is responsible for setting and administering pipeline safety regulations with oversight carried out by the Pipeline Safety Bureau in the Division of Reliability and Security. PHMSA is responsible for federal pipeline safety oversight and the administration of federal pipeline safety laws. Both the Board and PHMSA inspect pipeline facilities, oversee required reporting and investigate potential concerns associated with the safety of the natural gas distribution system.

The U.S. Congress has enacted laws over the last decade that have materially expanded operator requirements and PHMSA responsibilities. These include the Pipeline Safety Improvement Act of 2002, the Pipeline Integrity, Protection, Enforcement, and Safety Act of 2006 ("2006 PIPES Act"), and the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011. These three acts apply to interstate and intrastate pipelines, LDCs and other gas distributors considered system operators. Most importantly, the 2006 Pipes Act required PHMSA to lead a stakeholder process to develop new Distribution Integrity Management Programs ("DIMP").

Q. Please explain the essential requirements of DIMP?

A. The DIMP regulations mandated that a risk-based approach to distribution main and service integrity management plans be prepared by each operator no later than August 2011. While the new regulations prescribe a specific framework for documenting operating practices and procedures into a plan, the regulations provide significant operator flexibility to satisfy the requirements. At a minimum, each distribution pipeline operator's DIMP must address seven major elements. NJNG's DIMP reflects important documentation of the Company's risk-based approach to integrity management according to the required elements as follows:

(1) **Knowledge:** Knowledge entails the documentation of information pertaining to system design, materials, operating characteristics and environmental factors. NJNG's DIMP references data contained in the Company's geographic information system, leak management system and corrosion control system. The combination of these tools allows NJNG to maintain, store, report and analyze critical data related to its infrastructure.

(2) **Identify threats:** Threat identification determines broad issues that may affect the safe operation of the distribution system. Potential threats follow the categories of potential operational hazards established by PHMSA. NJNG relies on both internal and external data sources to identify threats. Internal data sources include various design and operating records contained in the systems noted previously. External data sources include industry-wide data and data related to soil conditions or prepared by independent researchers.

(3) **Evaluate and rank risks:** The process of evaluating and ranking risks determines the relative importance of all identified risks. Importance takes into consideration both likelihood of occurrence and the consequences of occurrence. NJNG relies primarily on appropriate analysis to evaluate and rank risks.

(4) **Identify and implement measures to address risks:** This element of NJNG's DIMP documents measures to reduce risk of failure. Multiple integrity management processes fall under the rubric of measures that address risks. Programs at NJNG that address risks include the leak management, damage prevention, corrosion control, public awareness and operator qualification programs. Specific actions include prevention, detection, mitigation and/or replacement and upgrade, depending on the risk-based probability of occurrence and consequences of the specific integrity threat.

(5) **Measure performance, monitor results, and evaluate effectiveness:** Monitoring and measurement activities allow NJNG to evaluate the effectiveness of actions implemented in order to address risks. NJNG

measures performance from a variety of information including the collection of data on leak causes and leaks repaired or eliminated. These data are reported and communicated within NJNG for evaluating trends and to provide input for future planning.

(6) **Periodic evaluation and improvement:** Periodic evaluation establishes a definitive feedback loop for the overall integrity management process. The entire DIMP is evaluated at least every five years. Additionally, as knowledge concerning the distribution system or potential threats is gained, the elements of the DIMP or required actions may be revised to take into account the impact of the enhanced understanding upon the effectiveness of NJNG's integrity management activities.

(7) **Report results:** Reporting on integrity management actions and results provides information to NJNG's internal management and satisfies federal and state mandated reporting. Annually, NJNG reports data concerning the facilities in service by vintage and material, as well as leaks and associated causes.

Q. Please describe in more detail the planning involved with integrity management.

A. Planning to successfully address the safety risks associated with operating a natural gas distribution system is multi-faceted. A natural distinction exists between planning for emergency response activities and planning to address non-emergency risks. Planning for emergency response must ensure that adequate levels of construction and maintenance crews, heavy equipment, tools, and materials and supplies stand ready to repair any emergency leaks or other hazards that require immediate attention. Emergency planning must take into account the peak emergency demands that coincide with extreme cold weather and the location of infrastructure in the Company's service territory that spans more than 1,400 square miles. Non-emergency planning entails medium and long-range planning to optimize NJNG's leak management efforts. This type of planning is proactive and relies extensively on NJNG's analysis processes. Non-emergency planning also considers the most effective means of potentially reducing the impact of replacement activities and coordinating that work with affected municipalities.

Q. What resources are required to carry out the integrity management functions of the Company?

A. NJNG dedicates considerable capital and staffing resources to managing the integrity of its system, reflecting both the importance of and challenges associated with its commitment to safety. The Company's Energy Delivery business unit is the largest within NJNG, both in terms of capital and Operations and Maintenance ("O&M") budgets and staffing levels. NJNG consistently invests in maintaining and enhancing the safety of its system as described earlier in my testimony, and as reflected in its short and long-term capital budgets. In terms of staffing, the Energy Delivery business unit includes 369 NJNG employees and oversees two outside contractor firms performing the majority of NJNG's planned construction activities. Energy Delivery employees are supported by field offices located throughout the service area, as well as the Company's investment in vehicles and equipment necessary to address all needs and operating circumstances. Additionally, a portion of the Energy Delivery staff provides important management, engineering and construction oversight for the business unit.

Q. How do the costs of emergency replacements compare to the costs of planned replacements?

A. Emergency replacements occur when field personnel determine that remedying a leak through repair is not possible and a replacement must occur immediately. In the past two years, on average, 1.2 miles of main per year has been replaced in response to emergency situations. The brittle characteristics of decades old cast iron pipe present the most significant challenge to completing a leak repair without initiating an emergency replacement. Factors that influence the need to replace rather than repair also include the material condition of the exposed pipe, the specific nature of the leak, and the proximity of any other nearby leaks. The costs of emergency replacements have been high due to inefficiencies in the deployment of crews that are unavoidable when dealing with unplanned and short segment work. Costs associated with restoration for emergency replacements have also been high due to the need to address street openings on a temporary basis initially and the subsequent need for permanent restoration work, and also due to the short segments associated with emergency repairs. Over the last two years,

the average cost of emergency main replacements has been approximately 70 percent greater than scheduled work.

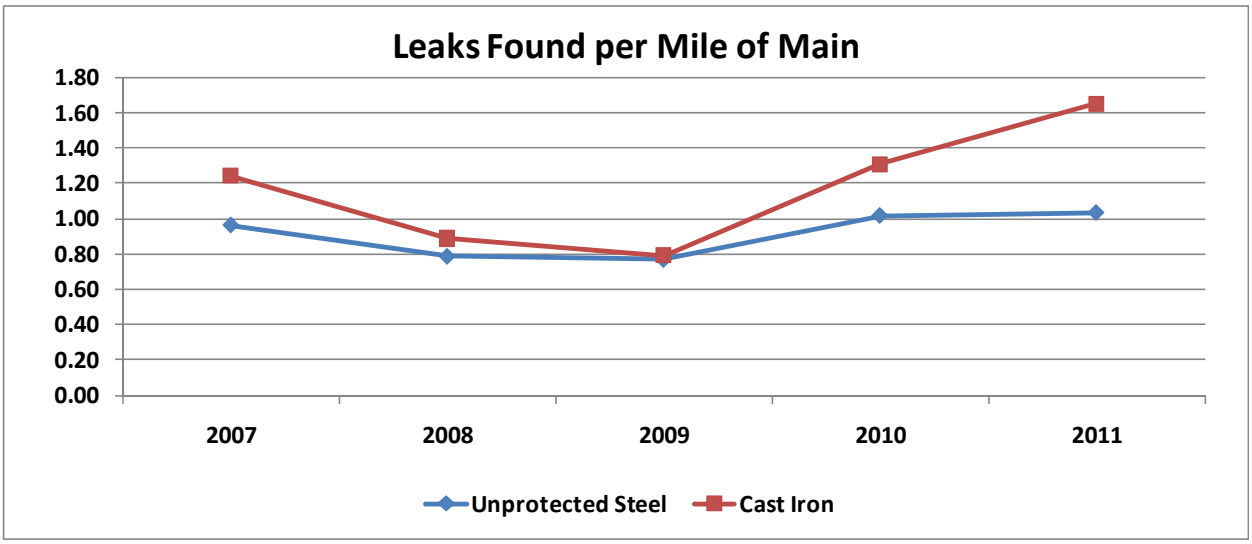
Planned replacements reflect numerous cost advantages over emergency replacements primarily attributable to the longer segments of pipe involved. These cost savings include a reduction in the proportion of time at the worksite associated with crew setup, improved opportunities to plan job requirements in advance, and reduced restoration costs. Over the last two years, the average cost for planned replacements has been approximately $65 per foot installed. NJNG has been able to replace approximately 12.3 miles of main on a planned basis. In addition, very short segments replaced on an emergency basis may subsequently need to be replaced if nearby pipe is eventually replaced as part of a large project.

Q. Please describe trends in the Company's leak rates?

A. The Company tracks leaks according to industry standard categories that take into consideration severity and proximity to nearby structures. Grade 3 leaks are the least severe at the time of detection and, while reasonably expected to remain non-hazardous, are monitored. Grade 2 leaks are non-hazardous at the time of detection, but may require planned repair depending on the potential for a future hazardous conditions from changes in ground conditions, such as freezing or venting. Grade 1 leaks represent a hazard at the time of detection and require immediate repair or continuous monitoring actions until a repair is possible.

In recent years, the Company has experienced an uptick in leaks per mile of main. The recent trend follows a period of declining leaks per mile that resulted from operational changes implemented prior to 2000 affecting the Company's approach to Grade 2 leaks. Figure 1 displays the trends in NJNG's leaks for unprotected steel and cast iron mains.

Figure 1



Q. What actions are triggered after a leak is discovered?

A. Leaks are identified through either NJNG leak surveys or in response to gas odor calls from customers or the community. At the time a leak is discovered, field personnel are dispatched to locate, investigate and grade the leak according to the required criteria. The grade of the leak will determine whether repair is needed immediately (Grade 1), it should be scheduled in the future (Grade 2), or it may not be required (Grade 3). Grade 3 leaks are monitored on a going forward basis. Additionally, the leak is recorded in one of two information management systems so that it can be properly monitored and tracked. Distribution main leaks are recorded in the leak management system by completing a required leak card. Distribution service leaks are recorded in the service locator database. The identification of a leak results in more frequent surveys of the affected facilities until a repair is made. In addition, distribution main leaks are incorporated in the risk evaluation system to provide for risk assessment and evaluation.

Q. Has the Company modified its approach to leak management over the years?

A. Yes. NJNG made a significant operational change to the manner it addresses Grade 2 leaks in 1998. At that time, the Company had 4,600 Grade 2 leaks that it was monitoring on its system. The Company committed to repairing the Grade 2 leaks that were being

monitored at that time through aggressive repair efforts. Once this occurred, the Company established a goal of repairing all Grade 2 leaks within twelve months, an approach aligned with industry best practices, to provide important safety benefits to customers. As a result, the quantity of leak repair activity was elevated over the 1998-2006 timeframe as the backlog of Grade 2 leaks was cleared out.

Q. What level of emergency replacement activity has been conducted by the Company in the past several years?

A. As noted previously, when the Company sets out to repair a leak, sometimes an emergency replacement is required instead of a repair. The need for this level of work is not known until the repair effort is underway and the facilities can be visually inspected. Given the fact that NJNG's unprotected steel and cast iron mains increase in age every year, the proportion of leak repair jobs that lead to emergency replacements is more likely to increase than decrease over time without an accelerated replacement program.

Q. Does the Company have any performance metrics associated with its integrity management activities?

A. Yes. The primary integrity management metrics utilized by NJNG are based on leaks per mile of system. This information is further analyzed by cause of leak and pipe type. The categorization of leak causes and pipe type allows the Company to utilize reporting geared to these metrics and evaluate important aspects of the effectiveness of its integrity management efforts. Additionally, NJNG monitors the number of Grade 2 leaks that are on the system and scheduled to be repaired.

Q. Even though NJNG has managed the integrity of its system over the years, do you believe that there are challenges in the near future?

A. Yes. The greatest threat to the integrity of NJNG's distribution system is the continued aging of its unprotected steel and cast iron infrastructure. As that continues, I expect that the leak rates per mile on these facilities will increase. Increased prevalence of leaks will lead to higher costs and place strains on the Company's leak management efforts even though the Company is investing in the gradual replacement of these facilities. The

degree of concern is not known with certainty given the potential range of increases in leak rates that may be experienced.

Q. Please describe the appropriate course of action under these circumstances.

A. The appropriate and operationally prudent course of action is to accelerate the replacement of unprotected steel and cast iron infrastructure. The focus of the effort should be on pipe materials that would eventually require replacement due to age and material composition; however, in an accelerated program that replacement can occur over a predictable and managed time period. NJNG believes that accelerated replacement of the inventory of these facilities will provide important safety benefits to the public and our customers. The accelerated replacement allows NJNG to achieve important cost savings and efficiency benefits from a broad and proactive approach to necessary replacements. Accelerated replacement avoids the potential for future operational issues that may occur if the continued aging of unprotected steel and cast iron pipe results in a substantial increase in the rate of gas leaks experienced by the Company.

Q. Does the replacement of aging unprotected steel and cast iron mains provide the opportunity for additional safety enhancements?

A. Yes. The replacement of aging distribution mains will allow the Company to continue to implement additional measures that enhance safety. Excess flow valves ("EFVs") installed at the interconnection of the gas service with the main automatically shut off gas when a leak or break downstream of the valve is allowing gas to escape and creating a hazardous situation. EFVs also eliminate the hazardous condition that may occur when escaping gas from customer facilities within the premise or Company facilities outside the premise result in gas build-up at the walls of the home or business. The installation of EFVs was mandated by the 2006 PIPES Act and implemented through federal rules.

NJNG was an early adopter of EFVs and is a best practices leader in the adoption of this technology. NJNG has employed EFVs on the vast majority of single family new services since 1994. The Company also installs EFVs whenever older services are replaced. To date, NJNG has installed EFVs on approximately 179,000, or approximately 39 percent, of all active services. The accelerated replacement of the Company's remaining inventory

of unprotected steel and cast iron mains will allow NJNG to increase the utilization of EFVs for up to an additional 40,000 services, providing important safety benefits to customers.

Other safety advantages are enabled with the associated SAFE main replacements such as reconfiguring low pressure portions of the distribution system for the higher operating pressures. For example, the meter set configuration on medium pressure systems incorporates additional pressure relief via a pressure regulator. Often customers requiring higher pressure supplies served off lower pressure lines install pressure booster equipment and safety valves behind the meter. This equipment can be removed with higher operating pressures on NJNG's facilities, mitigating safety risks associated with behind-the-meter customer configurations. The Company will also try to position replacement gas mains further from other utility infrastructure, when possible, in order to reduce future excavation risks.

Q. Have recent incidents in other jurisdictions led to heightened concerns over the implications associated with aging natural gas infrastructure?

A. Yes. Under the direction of Secretary LaHood, the U.S. DOT and PHMSA have called for reestablishing the fitness for service of the nation's natural gas system, including the replacement of aging facilities. The renewed focus on these efforts is attributable, in part, to an increase in the incidents that resulted in death and injury over the last few years. The outcome of these incidents is the DOT's Call to Action, which calls for more aggressive actions on the part of pipeline operators to repair and replace infrastructure that is considered high risk. PHMSA specifically includes unprotected steel and cast iron pipe as categories of pipeline infrastructure that require repair, rehabilitation and replacement. NJNG's decision to pursue a more aggressive and concerted replacement effort to address its inventory of these facilities is consistent with the Call to Action.

IV. NJNG SAFE PLAN

Q. Please describe the Company's planned replacement program.

A. NJNG is proposing to implement the SAFE program whereby the Company will replace and refurbish approximately 344 miles of unprotected steel and cast iron main and services over the five-year period. The impact of the plan will be to reduce by approximately 60 percent of the Company's inventory of highest-risk infrastructure in five years. The plan focuses on accelerating the replacement of facilities that would be replaced eventually and enables the replacement to occur in an expedited, coordinated and efficient manner.

Q. What resources are required to successfully complete this program?

A. The Company will require an increase in staffing for engineering and construction management in order to raise the level of replacement accomplished each year. NJNG will continue to utilize outside contractors for a majority of the planned replacement work under the program. The independent contractors will require incremental staff and equipment to complete the program as well.

Accelerating the replacement activity will require NJNG to dedicate capital to meet the increased spending levels. NJNG considers the proposed cost recovery mechanism to be an essential component of the SAFE plan. As explained in the Sperduto testimony, the cost recovery mechanism facilitates the Company's investments in this important program by enabling the Company to raise necessary capital in an efficient manner.

Q. Please explain how NJNG will determine which infrastructure should be replaced in a given year.

A. The Company will prepare an overall plan that reflects the opportunities created by expanding the scale of replacement efforts. To the extent that ongoing risk assessments indicate elevated concerns associated with specific areas, NJNG will work to address these areas sooner rather than later. NJNG will seek to achieve broader scale for individual projects in planning which areas to replace each year. Other factors will be

incorporated into the prioritization analysis including opportunities to coordinate with municipal work that requires opening up streets containing pipe that will be replaced. The timing of replacements must also account for winter and summer construction moratoriums in effect for some portions of the Company's system.

Q. What is the expected cost of replacing the Company's aging unprotected steel and cast iron facilities?

A. NJNG estimates the infrastructure investment for the program, to be approximately $204 million over five years. The budgeted amount is comprised of approximately $142.2 million for the replacement of steel and cast iron mains, $53.6 million for the replacement of associated steel services, and $7.9 million associated with the replacement of meters as required. These estimates are based on the Company's cost experience over the last two years, adjusted for inflation and expected savings associated with the multi-year commitment. Further, NJNG reflected the historical cost variances associated with performing work in the different counties in which it operates.

Q. How does a multi-year program affect the work effort involved with replacing aging infrastructure?

A. A multi-year program enables the Company to enhance the efficiency of these efforts and reduce the total work and associated costs required to complete the replacements. The most significant benefit is the reduction in construction mobilization and engineering efforts associated with completing larger projects. Larger projects also require fewer tie-ins and reduce permitting, inspection and restoration costs.

Q. Will NJNG hire staff to work on the SAFE program?

A. Yes. The Company will hire staff in its engineering and construction management areas to carry out the increased workload associated with the program. The new jobs represent higher grade positions within the Company. Currently, we anticipate creating 8 new full-time equivalent positions at NJNG.

Q. What is the impact on outside contractors?

A. The implementation of a multi-year program offers important opportunities for outside contractors to plan more effectively to meet increased work requirements. The increased level of work will require contractors to add construction jobs, acquire additional equipment and support necessary operator qualification. Board approval of the Company's five-year SAFE program will allow NJNG to make a longer commitment to contractor services, enabling contractors to amortize the costs of the additional staff and equipment over a longer period. This should translate into lower costs for NJNG and a more productive work effort, providing immediate benefits to the New Jersey economy. More details on the anticipated economic impact are provided in the Sperduto Testimony

Q. How will the institution of a multi-year replacement program affect the deployment of capital necessary to provide service to customers?

A. The SAFE program offers important opportunities to improve upon the current capital requirements associated with continuing the replacements at a slower rate. The adoption of an accelerated multi-year program will allow NJNG to address larger sections of pipe within a single construction project, leading to lower costs per mile as aspects of the engineering and construction mobilization effort are amortized over a larger project. Additionally, the program will reduce, over time, the emergency replacements with substantially higher cost per mile than planned replacements. As a result, the proportion of replacements that are planned will increase, enhancing the efficient use of capital to address safety risks associated with aging infrastructure. Lastly, the slowdown in the economy offers the potential to secure necessary resources for the program at lower costs, further reducing capital requirements.

Q. What impact will SAFE have on the Company's O&M budget?

A. NJNG anticipates that the program will stem the increase in O&M costs associated with repair and leak survey work as the associated pipe continues to age. While the impact is not expected to result in a decrease in the absolute level of annual leak repair work included in the O&M budget initially, there may be a reduction in the later years of the

program. Given the offsetting trends of lower O&M along portions of the system that are replaced and higher O&M along remaining unprotected steel and cast iron pipe segments, the Company is not proposing any O&M adjustment to the costs of the program to be recovered from customers.

Q. What factors will affect the achievement of replacement targets?

A. NJNG anticipates that the implementation of a multi-year effort will allow it to achieve the targets set forth in the plan. The completed replacements during the initial two years of the program are likely to be lower than during the later years as the Company addresses the ramp-up of the program, including additional hiring, engineering and permitting work, revised contracts with independent contractors, and operator qualification necessary to support the program. However, the ability to spread the impact of the ramp-up effort over a five-year plan provides important benefits in terms of overall cost savings when compared with a shorter commitment to accelerated replacement. The most significant challenges to meeting the budgeted level of program costs are associated with any potential increase in economic activity in the later years that may affect material or labor costs.

Q. Does the Company intend to provide regular reporting on its progress?

A. Yes. NJNG will provide a semi-annual report that sets forth all activity undertaken during the applicable six-month period to replace aging unprotected steel and cast iron pipe. These reports will provide information on the length and location of infrastructure replaced, as well as an indication of areas expected to be replaced in the upcoming period. The Company will document the costs incurred for the year in conjunction with each SAFE cost recovery filing as described in greater detail in the Sperduto Testimony.

V. SAFE PLAN BENEFITS

Q. Why is SAFE necessary now?

A. The need for the SAFE program is determined in large part by the age and material composition of elements of the Company's distribution infrastructure. Decades-old unprotected steel and cast iron pipe exhibits significantly greater leak rates and poses the most significant safety risks associated with the operation of the system. Accelerated

replacement of these facilities is consistent with Secretary LaHood's Call to Action, the general requirements of DIMP and the Company's specific DIMP, as well as the emphasis by PHMSA on addressing the concerns in a timely manner. Additionally, as noted in the Sperduto testimony, the National Association of Regulatory Utility Commissioners recently expanded its emphasis on pipeline safety and infrastructure replacement. Adopting the SAFE program contributes to many benefits and supports NJNG's overall operational objectives of safety, reliability and cost-efficiency. In addition to safety benefits, the SAFE program will achieve cost savings associated with the replacement activities, providing important benefits to NJNG customers, the communities we serve and employment in New Jersey.

Q. Please describe the public safety benefits associated with the proposed SAFE program.

A. The safety benefits of the accelerated investments to replace aging infrastructure are clear and compelling. The SAFE program would remove from service approximately 60 percent of the Company's inventory of pipe that is significantly more susceptible to leaks in five years. Any leak is a potential safety hazard, increases the potential for an incident and leads to higher operating costs associated with leak management. In addition to the elimination of a significant source of leaks, the use of state-of-the-art materials provides numerous safety advantages compared to the facilities that are replaced. These include the implementation of EFVs and the safety benefits associated with operating the distribution system at higher pressures as described previously. Also, distribution configurations based on plastic enable the Company to more readily isolate and shutoff a smaller area when excavation damage occurs, minimizing the impact on customers. Finally, these projects directly align with the previously discussed federal Call to Action.

Q. Are there cost savings associated with the implementation of SAFE?

A. There are two important aspects of the accelerated multi-year SAFE program that provide for cost savings. The first is the structured impact that will lead to increased economies of scale. Economies of scale are driven by the longer-term planning horizon and the larger scope of the project that results from acceleration. Cost savings associated with scale benefits include most areas of the program, including engineering costs, material costs

and outside contractor costs. The second savings area is the potential to reduce high cost emergency replacements over time as a greater proportion of unprotected steel and cast iron pipe is removed.

Q. How will customers benefit from the Board's approval of the program?

A. Customers will realize important benefits associated with the SAFE program. The enhanced safety and reliability of facilities in proximity to their homes and businesses is crucial. The cost savings associated with replacement work that is eventually required will lead to lower costs for infrastructure replacement reflected in customer prices. In addition, a reduction in the increased trend of leak calls and repair work will improve customer satisfaction and reduce customer impacts. Lastly, customers utilizing high efficiency equipment will realize incremental efficiency and cost savings benefits associated with higher operating pressures.

Q. What are the employment benefits associated with the program?

A. The SAFE program will provide important employment benefits in New Jersey. These include direct NJNG staffing increases and independent contractor employment increases. The Company estimates that the program will lead to over 2,000 new jobs in the State including direct, indirect and induced one-time job years associated with the increased economic activity andsubstantial investments in infrastructure through SAFE. The increased employment provides benefits to local and state tax revenues as well.

Q. How will the program benefit communities served by NJNG?

A. The communities where work occurs will benefit from the SAFE program by the resulting enhancements to infrastructure that are capable of meeting current and future needs. The longer planning horizons and increased scope also enable NJNG to work with affected communities to plan construction in ways that minimizes overall disruption to the community. A reduction in the level of emergency repair and replacement work is beneficial to the affected communities as well, especially since emergency work leads to undesirable disruptions and the opening of paved streets.

Q. Please summarize your recommendations.

A. Aging unprotected steel and cast iron pipe serving NJNG customers exhibits significantly greater leak rates than plastic and cathodically protected steel pipe and will eventually require replacement. The accelerated replacement enabled under the five-year infrastructure investment plan and associated cost recovery mechanism represent an operationally prudent approach to the present situation. The SAFE program will result in a 60 percent reduction of the highest risk infrastructure during the five-year period. The safety-related and other benefits resulting from the accelerated five-year program are significant. Therefore, I am recommending that the SAFE program be approved.

Q. Does this conclude your prepared direct testimony?

A. Yes, it does.

NOTICE TO NEW JERSEY NATURAL GAS CUSTOMERS
Docket No. GR12_____

NOTICE OF FILING AND PUBLIC HEARING

TO OUR CUSTOMERS:

PLEASE TAKE NOTICE that on March 20, 2012, New Jersey Natural Gas (NJNG or the Company) submitted a filing with the New Jersey Board of Public Utilities (Board) seeking approval of the Safety Acceleration and Facilities Enhancement (SAFE) program. SAFE is a five-year plan through which NJNG will accelerate its investment in the replacement of cast iron and unprotected steel distribution pipeline. The Company also requested approval to utilize for SAFE the Board-approved accounting methodology and investment recovery mechanism currently in effect for the Accelerated Energy Infrastructure Investment Program AIP).

NJNG continuously engages in the construction, operation and maintenance of its public utility infrastructure, including the property, plant, facilities and equipment that comprise the natural gas distribution and transmission system utilized to serve almost 500,000 residential and commercial customers. In furtherance of the Company's commitment to maintain the reliability and safety of its delivery system, NJNG is proposing the SAFE Program through which the Company will accelerate the replacement of existing cast iron and unprotected steel distribution mains and services. The projects to be accomplished through this program are not related to new business investment and are not revenue-generating.

The work on these projects will commence as soon as possible following the effective date of the Board Order approving this request and is contingent on many factors, including permitting, staffing and other project-related investments. The work will be completed within approximately five years from the start date.

The capital expenditures over the anticipated installation period will total approximately $204 million. The Company seeks to recover a return on that investment, including taxes, through a methodology similar to that approved for recovering AIP costs.

At this time, the Company is requesting Board approval to initiate SAFE and, if approved, there is no immediate impact on customers' rates. Following approval and the commencement of infrastructure replacement construction, the Company will make an annual filing by June 1 in each of the subsequent five years, seeking Board approval to include in base rates the costs of the annual SAFE infrastructure investments. The magnitude of any increase depends on the actual costs of those projects. However, it is anticipated that the increase could be approximately 0.07 percent in the aggregate to the average residential heating customer's overall natural gas bill based on the Company's current rates and anticipated sales volumes.

Any future impact on customers will be determined at a later date by the Board after the June 1 filings and the final disposition of this matter found by the Board to be just and reasonable may result in an upward or downward impact on a customer's bill from the proposal filed by NJNG. The Board has the statutory authority to approve the SAFE program and may establish the related changes to base rates at levels it finds just and reasonable. Therefore, the Board may establish the new rates at levels other than those proposed by NJNG.

PLEASE TAKE NOTICE that the Board has scheduled public hearings on this petition, although there is no change in NJNG rates proposed at this time, at the following dates, times and places:

??????? at 4:30 and 5:30 p.m.
Rockaway Township Municipal Building
Conference Room
65 Mt. Hope Road
Rockaway Township, NJ 07866-1698

????? **at 4:30 and 5:30 p.m.**
Freehold Township Municipal Building
Schanck Road – One Municipal Plaza
Freehold, New Jersey 07728-3099

The public is invited to attend, and interested persons will be permitted to testify and/or make a statement of their views on the proposed program. In order to encourage full participation in this opportunity for public comment, please submit any requests for needed accommodations, including interpreter, listening devices or mobility assistance, 48 hours prior to these hearings to the Board Secretary at the address below. Regardless of whether they attend the hearing, members of the public may submit written comments concerning the Petition to the Board by addressing them to: Kristi Izzo, Secretary, New Jersey Board of Public Utilities, 44 South Clinton Avenue, 9th Floor, P.O. Box 350, Trenton, New Jersey 08625-0350. Copies of the Petition and supporting documents can be reviewed at the NJNG Customer Service Centers or at the New Jersey Board of Public Utilities at the above address.

Tracey Thayer, Esq.
New Jersey Natural Gas

Morris County Unprotected Steel Replacement:

Estimated total Cost $42.8 million

- Annually replace approximately 11.5 miles of natural gas distribution main and associated services and meters, on average, over a five year period.
- This infrastructure replacement work will reduce the amount of unprotected steel mains and services in the Morris County portion of our service territory.
- All municipalities in Morris County within the NJNG franchise territory have infrastructure that could need replacement through SAFE.
- Annual plans will be developed and provided for the work to be addressed in specific towns.
    - That determination is based on a number of variables, including age of the facilities, concentration of affected main in a given area, leaks on the facilities, town, county or state projects and other appropriate environmental conditions.

Monmouth County Unprotected Steel & Cast Iron Replacement

Estimated Total Cost $102.0 million

- Annually replace approximately 35.8 miles of natural gas distribution mains and associated services and meters, on average, over a five year period.
- This infrastructure replacement work will reduce the amount of unprotected steel and cast iron mains and services in the Monmouth County service territory.
- All municipalities in Monmouth County have infrastructure that could need replacement through SAFE.
- Annual plans will be developed and provided for the work to be addressed in specific towns
    - That determination is based on a number of variables, including age of facilities, concentration of affected main in a given area, leaks on facilities, town, county or state projects and other appropriate environmental conditions.

Ocean County Unprotected Steel & Cast Iron Replacement

Estimated Total Cost $58.9 million

- Annually replace approximately 21.5 miles of natural gas distribution mains and associated services and meters, on average, over a five year period.
- This infrastructure replacement work will reduce the amount of unprotected steel and cast iron mains and services in Ocean County.
- All municipalities in Ocean County have infrastructure that could need replacement.
- Annual plans will be developed and provided for the infrastructure work to be addressed in specific towns.
    - That determination is based on a number of variables, including age of facilities, concentration of affected main in a given area, leaks on facilities, town, county or state projects and other environmental conditions.